

UNIVERSITY OF CAPE COAST

SCIENTIFIC MEDICAL PRACTITIONERS AND TRADITIONAL
MEDICINE IN CONTEMPORARY GHANA: A STUDY OF ATTITUDES
AND PERCEPTIONS

BY

EMMANUEL ASANTE

THESIS SUBMITTED TO THE DEPARTMENT OF SOCIOLOGY AND
ANTHROPOLOGY OF THE FACULTY OF SOCIAL SCIENCES,
UNIVERSITY OF CAPE COAST, IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR AWARD OF MASTER OF PHILOSOPHY
DEGREE IN SOCIOLOGY

MAY 2010

DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original work and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature: Date:

Supervisors' Declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature: Date:

PROF. BAFFOUR K. TAKYI

Co-Supervisor's Signature: Date:

DR. RAPHAEL AVORNYO

ABSTRACT

Traditional Medicine (TM) has been practised in Ghana from time immemorial and many Ghanaians still patronise the services of traditional medical practitioners (TMPs). However, TM has not been integrated into the formal healthcare delivery system of the country. This might be partly due to attitudes and perceptions towards it.

The aim of the study was to find out the attitudes and perceptions of Scientific Medical Practitioners (SMPs) towards TM in Ghana and then propose measures for the full integration of TM into Ghana's healthcare delivery system. A descriptive survey methodology was used to solicit responses from 33 SMPs practising in the Central Region of Ghana, the study draws conclusions of a formative nature on the attitudes and perceptions of SMPs towards the integration of traditional medicine (TM) into the national healthcare delivery system.

The main result of the study is that, although SMPs would want the full integration of traditional medicine (TM) into the formal healthcare delivery system, when confronted with possible ways of working with TMPs they showed reluctance to accepting them as equal partners since they perceived their practice as inferior to theirs. In order to reduce the mistrust and lack of understanding of the philosophy that underlie Scientific Medicine and Traditional Medicine, there must be regular consultations and dialogue between and among practitioners of the two medical systems. This may engender the needed trust and respect that the practitioners need to accord each other in order to develop and integrate TM into the national healthcare system.

ACKNOWLEDGEMENTS

‘‘It never happens without help’’. - Tom Clancy

I wish to acknowledge, with thanks, the guidance, support and encouragement I received from many people to enable me to complete this study. First and foremost, I would like to thank my supervisors: Dr. V.K. Ametewee, former Lecturer, University of Cape Coast (UCC), Dr. Raphael Avornyo, Lecturer, UCC and Professor Baffour K.Takyi, University of Akron, USA and Visiting Lecturer, UCC, for their critical and insightful comments.

I also extend my heartfelt appreciation to Professor Mansah Prah, Professor Nancy Lundgren, Professor D.K. Agyeman, Dr. Henrietta Abane, Messrs Godwin Egbenya, J. Kingsley Adjei, Edgar T. Akonor, and Ms. Fanny Hammond, all Lecturers of the Department of Sociology and Anthropology of UCC; Professor S. Kofi Bonsi and Mr. Alex Somuah Obeng, former Lecturers in the Department of Sociology and Anthropology, UCC; Mr. Okyere Boateng, Assistant Registrar, Noguchi Memorial Institute for Medical Research (NMIMR) of the University of Ghana (UG), Mr. Daniel A. Ameyaw, Assistant Registrar, Presbyterian University College, Agogo-Asante Akyem; Ms. Margaret Agyare, Tutor, Nkwatia Presbyterian Senior High School, Mr. Kwadwo Oppong Ansu, Tutor, Sunyani Senior High School, Mr. Richmond Bentum, Mr. Samuel Peprah, Mr. Justice Nani, Mr. Anthony Anaafi and Mr Etse Seake Kwawu all Tutors of Jukwa Senior High School, for the interest they showed in this study and for their encouragement.

Although the words ‘thank you’ are simple words, I use them with a deep sense of gratitude to the administrative staff of the Department of

Sociology and Anthropology, especially Ms. Christina Acquaye and Ms. Agatha Mensah.

I would also like to express my appreciation to the following colleagues at the University of Cape Coast, who assisted me in diverse ways - Mr Daniel Sakyi Agyirifo of the Department of Molecular Biology and Biotechnology; Messrs Samuel Agblorti, Esia Donkor and Williams Okyere of the Department of Population and Health; Mr. Eric Koka, Mr. Haruna Umar and Mrs. Naa Adjeley Alakija Sakyi of the Department of Sociology and Anthropology. Their help and encouragement in diverse ways also made the completion of this study possible and for the candidate not to despair in the face of adversity.

I am also grateful to the William and Flora Hewlett Foundation for their financial support. I would like to make special mention of the Grant Implementation Committee of UCC, chaired by Professor Mansah Prah, for graciously supporting my application for a grant and for providing the funds on time. The presentation of this study is an indication that their efforts have not been in vain.

Last but not least, my profound gratitude goes to my bosom friends Ms. Odelia Oduro and Nana Akua Amankwa; Mr. Prince B. Koomson, Tutor University Practice Senior High School, Cape Coast, Mr. Isaac Nunoo and Mr. Etse Seake-Kwawu, Tutors, Jukwa Senior High School for reading through the draft report and making very useful suggestions; and all the SMPs who provided me with the necessary data for the study. May the Good Lord bless them all.

DEDICATION

This study is dedicated to my grandfather, the late Mr. Samuel Tetteh Laryea, for the instrumental role he played in my education and training.

TABLE OF CONTENTS

	Page
CONTENT	
DECLARATION	ii
ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
DEDICATION	vi
TABLE OF CONTENTS	vii
LIST TABLES	viii
LIST OF FIGURES	xiii
LIST OF ACRONYMS	xiv
CHAPTER ONE: INTRODUCTION	1
Background to the Study	1
Statement of the Problem	2
Specific Objectives of the Study	4
Research Questions	5
Definition of Key Terms	6
Significance of the Study	7
The Context of Health Service Delivery in Ghana	8
Efforts at promoting traditional medicine	10
Technological support for research and development	10
The Centre for Scientific Research into Plant Medicine	11
Noguchi Memorial Institute for Medical Research	14
The College of Pharmacy of the Kwame Nkrumah University of Science and Technology	15

The Faculty of Science at the University of Ghana	17
Government regulations and legislation	18
The Code of Ethics and Standards of Practice	19
The Food and Drugs Law	21
Traditional and Alternative Medicine Directorate	21
Acceptance and promotion of TM by key stakeholders	22
Pepease Bonesetting Centre	22
Soafa Scientific Herbal Centre at Nkawkaw	23
CHAPTER TWO: LITERATURE REVIEW	26
Theory and Practice of Integration	26
Concepts and Practices of Integration	28
Institutional integration	28
Cognitive integration	30
Consumer engendered integration	30
Integration through adaptation	31
Philosophy of scientific medicine	32
Development of scientific medicine in Ghana	37
Scientific medical institutions and services	40
The Private Sector	40
The Ministry of Health	44
Regional Hospitals	45
District Hospital	45
Health Centres	46
Pharmacies	48

Drug Stores	48
Teaching Hospitals	49
Training of Scientific medical practitioners	50
The Training of Auxiliary Personnel	52
Philosophy of traditional medicine	55
Diagnostic Procedures	56
Causes of Illness	57
Traditional medical training	58
Common Diseases and Illnesses treated with Traditional Medicine	62
Types of traditional medical practitioners	64
Herbalists	65
Spiritualists	68
Diviners	70
Faith Healers	72
Faith healing methods	72
Traditional Birth Attendants	75
Theoretical Perspective	76
Attitudes and Perceptions of Scientific Medical Practitioners	77
Conceptual Framework	82
CHAPTER THREE: RESEARCH METHODOLOGY	85
Study Area	85
Study design	86
Target population	87
Sample and sampling procedure	87
Research instrument	87

Data collection	88
Pre-test	88
Main survey	89
Problems encountered in the field	90
Data Analysis	91
Limitation of the Study	91
CHAPTER FOUR: DATA PRESENTATION, ANALYSIS	
AND DISCUSSION	
Introduction	92
Summary of the characteristics of the respondents	92
Age distribution of respondents	92
Ethnicity of respondents	93
Marital status of respondents	94
Religious background of respondents	95
Educational background of respondents	95
Respondents' areas of specialization	95
Duration of practice of respondents	96
Distribution of respondents by rank	96
Perceived safety of traditional medicine	97
Perceived safety of traditional medicine by age	98
Perceived safety of traditional medicine by duration of practice	99
Perceived efficacy of traditional medicine	99
Perceived efficacy traditional medicine by age	101
Efficacy of traditional medicine by duration of practice	102
Perceived quality of traditional medicine	103

Perceived quality of traditional medicine by age	104
Perceived quality of traditional medicine by duration of practice	104
General training needs of traditional medical practitioners	105
Illnesses traditional medical practitioners should manage and treat	106
Attitudes towards integration of traditional medicine into the formal health service	107
Establishment of joint clinics	109
The use of traditional medical ideas and practices	110
Referral of cases to traditional medical practitioners	111
Types of cases referred to traditional medical practitioners	112
Referral of cases to scientific medical practitioners by traditional medical practitioners	113
Types of cases referred to scientific medical practitioners	113
Traditional medical practices that scientific medical practitioners were willing to learn	114
Traditional medical practitioners who could be integrated into the health service	116
Importance of traditional medicine in the formal health service in Ghana	117
The Advantages of Traditional Medicine	118
Weaknesses of Traditional Medical Practice	119
Suggestions aimed at improving Traditional Medicine	120
Respondents' views about the Herbal Medicine Programme at Kwame Nkrumah University of Science and Technology and the Placement of Graduates of that Programme	121

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND	
RECOMMENDATIONS	124
Summary	124
The study design	125
Conclusions	128
Recommendations	129
Need for Further Research	131
REFERENCES	132
APPENDIX	144

LIST OF TABLES

Table	Page
1. Breakdown of Christian Health Association of Ghana institutions	42
2. Bed State of the District Hospitals in the Regions as at 2005	46
3. Objectives for entering Edumfa Spiritual Revival and Healing Centre (1979-1984)	74
4. Marital status of respondents	94
5. Religious background of respondents	95
6. Duration of practice of respondents	96
7. Distribution of respondents by rank	97
8. Perceived safety of traditional medicine by age	98
9. Perceived safety of traditional medicine by duration of practice	99
10. Perceived efficacy of traditional medicine	101
11. Perceived efficacy traditional medicine by age	102
12. Efficacy of traditional medicine by duration of practice	102
13. Perceived quality of traditional medicine	103
14. Perceived quality of traditional medicine by age	104
15. Perceived quality of traditional medicine by duration of practice	105
16. Training needs of traditional medical practitioners	106
17. Illnesses traditional medical practitioners should treat by type of scientific medical practitioner	107
18. Attitudes of scientific medical practitioners towards integration of traditional medicine into the formal health service	108
19. Attitudes towards establishment of joint clinic by type of scientific medical practitioner	110

20. Use of traditional medical ideas, medicines and practices	111
21. Distribution of referral of cases to traditional medical practitioners	112
22. Types of cases referred to scientific medical practitioners	114
23. Traditional medical practitioners who could be integrated into the formal health service	116
24. Importance of traditional medicine in the formal health service in Ghana	118
25. Weaknesses of traditional medical practice	119
26. Distribution of suggestions by scientific medical practitioners aimed at improving traditional medicine	121

LIST OF FIGURES

Figure	Page
1. Model of Attitudes and Perceptions of scientific medical practitioners towards traditional medicine	83
2. Age distribution of respondents	93
3. Ethnic distribution of respondents	94
4. Perceived safety levels of traditional medicine	98
5. Traditional medical practices that scientific medical practitioners are willing to learn	115

LIST OF ACRONYMS

AIC	African Independent Churches
ATMC	Apaak Traditional Medicine Company
CAM	Complementary and Alternative Medicine
CHAG	Christian Health Association of Ghana
COCOBOD	Ghana Cocoa Board
CSIR	Council for Scientific and Industrial Research
CSRPM	Centre for Scientific Research into Plant Medicine
ENT	Ear, Nose and Throat
FDB	Food and Drugs Board
FGD	Focus Group Discussion
GHAFTRAM	Ghana Federation of Traditional Medical Practitioners
GHS	Ghana Health Service
GP	General Practitioner
KATH	Komfo Anokye Teaching Hospital
KBTH	Korle-Bu Teaching Hospital
LI	Legislative Instrument
MoH	Ministry of Health
NHIS	National Health Insurance Scheme
NLMPR	Noamesi Laboratory for Medical Plants Research and Development
NMIMR	Noguchi Memorial Institute for Medical Research
NTC	Nurses Training College
PBC	Pepease Bonesetting Centre
PCG	Presbyterian Church of Ghana

PHC	Primary Health Care
PLWHIV	Person Living with Human Immunodeficiency Virus
PPC	Presbyterian Prayer Centre
PSG	Pharmaceutical Society of Ghana
SM	Scientific Medicine
SMP	Scientific Medical Practitioner
SMS	School of Medical Sciences
SSNIT	Social Security and National Insurance Trust
STI	Sexually Transmitted Infection
TAMD	Traditional Medicine and Alternative Medicine Directorate
TBA	Traditional Birth Attendant
TH	Teaching Health
TM	Traditional Medicine
TMP	Traditional Medical Practitioner
TMPC	Traditional Medicine Practice Council
UDS	University for Development Studies
UGMS	University of Ghana Medical School
VRA	Volta River Authority
WASSCE	West Africa Senior School Certificate Examination
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION

Background to the Study

Increasingly, many countries find it necessary to harness all healthcare resources to enable them effectively promote health (Bensoussan & Lewith, 2004). In Ghana, the government finds it important to look at how all healthcare resources, especially that of the two main medical systems: Scientific, and Traditional, can be used to produce an effective healthcare (Senah, Akor & Mensah, 2001).

The scientific medical system which is foreign in origin and relatively more recent, has a high cost of service, its health facilities are inaccessible, and although according to Sarpong (2008), it caters for only 30% of the population, it takes the chunk of the budget of the nation. Yet it is the official healthcare system of the country.

The concepts, Complementary Medicine or Alternative Medicines (CAM), are used interchangeably with Traditional Medicine (TM) in some countries. According to the World Health Organization (WHO) the term TM refers to a broad “set of healthcare practices, approaches, knowledge and beliefs incorporating plant, animal and mineral- based medicines, spiritual therapies,

manual techniques and exercises, applied singularly or in combination to treat, diagnose and prevent illness or maintain well being’’(WHO,2004:1).

The WHO (1978) considers TM as one surest means to achieve total health coverage of the world’s population. This is because its records show that 70% of Ghanaians depend on TM for their healthcare needs. Therefore at the 1978 WHO sponsored International Conference on Primary Healthcare at Alma-Ata (USSR), it urged all governments to integrate TM into their formal healthcare service in order to effectively promote the health of their citizens.

The concept ‘integration’ in this study means a process of incorporating TM into the formal healthcare delivery system. This involves the introduction of traditional medicines, techniques and knowledge into the country’s mainstream healthcare delivery system (Hyma & Ramesh, 1994). Furthermore, integration denotes the exposure of Traditional Medical Practitioners (TMPs) and Scientific Medical Practitioners (SMPs) to the philosophies or theories behind Traditional Medicine (TM) and Scientific Medicine (SM) in order to provide an effective preventive and curative treatment for all Ghanaians.

Statement of the Problem

In Ghana, as well as many other African countries, stakeholders acknowledge that TM plays a very important complementary role in healthcare delivery systems. For instance, the WHO (2002) reports, that in Ghana, Mali, Nigeria and Zambia, the first line of treatment for 60% of children with high fever resulting from malaria is the use of herbal medicines at home. According to

Addae-Mensah (1995), the WHO estimates conservatively that between 60% and 90% of the populations of low-income countries rely on plant medicine to meet their healthcare needs. Apart from plant medicine, the populations generally patronise the services of TMPs because TM is affordable, accessible and available. However, it is beset with a number of problems. Among these, is the lack of integration of TM into the national healthcare delivery system by the Ministry of Health (MoH) and the Ghana Health Service (GHS). In fact, it is only a few institutions whose traditional medical practices are officially recognised by government. A case in point is the work of the Centre for Scientific Research into Plant Medicine (CSRPM). It produces over 40 herbal medicines that have been certified for the treatment of malaria, diabetes mellitus, stomach ache and hypertension. However, none of these drugs as well as those produced by other institutions and individuals is included in the MoH's Essential Drug List. The nation's National Health Insurance Scheme (NHIS) does not cover treatment of TMPs. In line with the provisions of the Traditional Medicine Practice Act (Act 575) promulgated in the year 2000, a Traditional Medicine Practice Council (TMPC) should be set up to promote, control and regulate traditional medical practice in Ghana. However, the Council is not operational because the Registrar appointed to serve on it has resigned leaving a secretary to run the secretariat. As of now, the only traditional medicine programme set up in institutions of learning in the country is the 'special' herbal medicine programme set up at the Kwame Nkrumah University of Science and Technology in Kumasi. The teaching of traditional medicine is not included in the curricula of the nation's medical

schools and nurses' training colleges; not even at Kwame Nkrumah University of Science and Technology's Medical School.

It is worth noting that a number of studies have shown that two main schools of thought have emerged with respect to SMPs attitudes and perceptions of integration of TM into the formal healthcare system (Senah, Akor&Mensah, 2001). These are conveniently categorised as those who support integration of TM into forma healthcare system and those who oppose it. For the advocates of integration, the issue is one of realism (Oyeneye 1984; Nchinda 1976). They argue that TMPs are available, accessible and the costs of their services are affordable. However, those who disapprove of integration contend that integration will discredit the healthcare system. This viewpoint is firmly rooted in the positivistic tradition that scientific medicine is rational and objective while traditional medicine is a combination of superstition and irrational beliefs(Bai1985).The exploration of these two major viewpoints with regards to integration of TM into the formal healthcare system was the burden of this study

Specific Objectives of the Study

The growing practice and acceptance of TM in Ghana, and the fact that the government wants to integrate TM into the healthcare delivery system of the country provide a unique opportunity to assess the attitudes and perceptions of scientific medical practitioners (SMPs) towards its integration into the healthcare system. This study therefore sought to:

- Explore the extent to which SMPs are willing to accept traditional medicine as a key component of Ghana's healthcare delivery system.
- Examine the working relationship that exists between scientific medical practitioners and TMPs.
- Ascertain factors that inhibit the acceptance of WHO's proposal on the working relationship between SMPs and TMPs.
- Identify behaviour of TMPs that might influence the attitudes and perceptions of SMPs positively and/or negatively towards the integration of TM into Ghana's healthcare delivery system.

Research Questions

Based on the research problems and objectives, the study seeks to answer the following questions:

- Do general practitioners (GPs) of scientific medicine accept traditional medical practice more than specialists?
- What is the nature of collaboration between SMPs and TMPs in healthcare delivery?
- What are the characteristics of traditional medical practice that engender negative attitudes on the part of SMPs?
- Do SMPs consider traditional medical practice important in the healthcare delivery system?

- What suggestions do SMPs have regarding the integration of traditional medical practice into the formal structure of the Ghana Health Service (GHS)?
- Which categories of traditional medical practice do SMPs think could be integrated into the national healthcare delivery system?

Definition of Key Terms

The following terms have been defined to ensure clearer understanding of how they have been used throughout the study.

1. Traditional medicine: According to the WHO (2004) traditional medicine refers to health practices, approaches, knowledge and beliefs incorporating plant, animal and mineral based medicines, spiritual therapies, manual techniques and exercises used to diagnose, treat and prevent illnesses or maintain wellbeing.
2. Scientific medicine: is Ghana's official healthcare system introduced by the British in the 18th century to maintain health and prevent, alleviate or cure illnesses.
3. Integration: means the process of incorporating traditional medical ideas, techniques, and medicines into the mainstream healthcare system.
4. Efficacy: refers to the ability of a traditional medicine or medical technique to treat, prevent or control an illness.

5. Safety: refers to traditional medical techniques and medicines which have minimal adverse effects on clients.
6. Quality: refers to traditional medicines which do not contain foreign materials and are properly packaged and labelled.
7. Complementary / alternative medicines: refers to a broad set of healthcare practices that are not part of a country's own tradition and not integrated into the dominant healthcare system.
8. Attitudes: Eagly and Chaiken (1992) define attitudes as “a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor”.
9. Perception: refers to the impressions that individuals form about people or entities.
10. General Practitioners: refers to SMPs who have a wide range of medical and surgical knowledge and who care for a diverse range of clients.
11. Specialists: are SMPs who focus deeply within a specific area of medicine, dentistry or psychiatry. In Ghana clients require a referral from their GP to see Specialists.

Significance of the Study

P.A. Twumasi (Twumasi, 1975: 88) states that “when one compares scientific medicine with traditional medicine, the former has brought obvious ‘benefits’ to the country. It has helped to lower the death rate and has increased

the life expectancy of the people”. However, it “has become a rare commodity difficult for the poor person to purchase, particularly in time and transportation. The cost factor is a problem (Twumasi, 1975:89). Another problem is accessibility. Many Ghanaians do not have access to SMPs because there are no hospitals/clinics located in or close to the area, in which they live. In view of these difficulties many Ghanaians, particularly the rural folks, patronize the services of TMPs, who are closer to them and also offer cheaper and more affordable services. Although some of the techniques that TMPs employ in their work could be viewed as harmful to their clients, certain aspects of TM are beneficial to the people of Ghana. There is, therefore, the need to integrate it into nation’s healthcare delivery system. This is dear to the hearts of many stakeholders in the health sector. However, this has not seen the light of day. Integration could only happen, if SMPs see this as something important. This study, therefore, seeks to find out what the thinking of SMPs is regarding integration. Their thinking would help inform policy makers about what needs to be done to promote TM in Ghana.

The Context of Health Service Delivery in Ghana

The relative ratio of traditional medical practitioners (TMPs) and scientific medical practitioners (SMPs) in Ghana is quite revealing. The World Health Organization (WHO) estimates that about 70% of the populations in the so-called developing world, especially Africa, depend on medicinal plants to meet their health care needs (WHO, 2002). Sarpong (2008) also notes that, there is one TMP

to approximately 900 people in Ghana. This means TMPs are more readily accessible to more Ghanaians than their SMP counterparts, since one SMP serves approximately twelve thousand clients (MoH, 2007). SMPs are also unevenly distributed with most of them practising in the urban areas. Amoa (2002) observes that about 25% of SMPs in Ghana are located in Accra and Kumasi. Furthermore, TM is affordable, especially to the poorest patients in the developing world. For instance, in Ghana, Kenya and Mali, treating malaria with pyrimethamine/sulfadoxine is expensive (Ahorlu, 1997), whereas treating malaria with herbal medicines is very cheap and may sometimes even be paid for in kind depending upon the social standing of the client. These useful insights have encouraged the Government of Ghana (GoG) and the WHO to attempt a modernization of TM and eventually integrate it into the national healthcare system.

This proposal was reinforced by the resolution adopted at the 1978 International Conference on Primary Health Care (PHC) at Alma Ata (Russia), which was organized under the auspices of the WHO and the United Nations Children Fund (UNICEF). At Alma Ata, the WHO and its affiliates resolved to work towards the gradual incorporation of useful aspects of TM into the national healthcare system (Hyma & Ramesh, 1994). The WHO is, however, of the view that not all aspects of TM are very useful. The objective of its TM programme is, therefore, to help countries identify and provide safe and effective medicines for use in the public and private health services. In order to achieve this objective, the WHO has collaborated with member states with regard to their national TM

development programmes. The collaboration is in the areas of review of national policies, legislation and decisions with respect to the nature and extent of the use of TM in their healthcare system.

Efforts at promoting traditional medicine

Being a member state of the WHO, Ghana has promoted the modernization of TM through its Ministries, Departments and Agencies (MDAs) with the aim of facilitating its integration into the national healthcare delivery system. Among the policy initiatives that have been pursued by the government are the following:

- A. Technological support for research and development
- B. Formulation and implementation of regulations and legislations
- C. Promoting acceptance of TM among key stakeholders

A. Technological support for research and development

There are various institutions including the Centre for Scientific Research into Plant Medicine (CSRPM), the Noguchi Memorial Institute for Medical Research (NMIMR), the Faculty of Pharmacy of the Kwame Nkrumah University of Science and Technology and The Faculty of Science of the University of Ghana implementing the Government of Ghana (GoG) policy of modernizing traditional medicine through research and development. The contributions of these institutions to the modernization of TM discussed below include:

The Centre for Scientific Research into Plant Medicine (CSRPM)

The CSRPM, which was established in 1974 at Mampong Akuapem in the Eastern Region of Ghana, is seen by many as a monumental testimony of the government's commitment to the modernization of traditional medicine and its eventual integration into the healthcare delivery system. The Center's objective is to produce herbal medicines that may be acceptable on the market. Besides producing plant medicine for the market, the Centre conducts clinical trials at its own clinic. An SMP offers treatment to clients at this clinic. The Centre's clients are treated with mostly herbal medicines. It has about forty herbal drugs. These medicines are in liquid, powder or ointment forms. The Centre is the brain-child of the late Dr. Oku Ampofo who graduated in 1939 after successfully pursuing a programme in medicine at the University of Edinburgh. Before finally returning to the Gold Coast, he undertook short programmes at the Liverpool School of Tropical Medicine. On his return, he collected medicinal plants from herbalists at Mampong and other towns on the Akuapem Ridge, after which he meticulously conducted extensive research to establish their efficacy and safety. Having ascertained the efficacy and safety of some of these medicinal plants, he then administered them to his clients. His pioneering work in this area culminated in the establishment of the CSRPM, whose first Director he became. The objectives of the Centre are to:

- i. Conduct and promote scientific research to help improve herbal medicine.

- ii. Ensure the extraction of pure medicines in collaboration with members of Ghana Federation of Traditional Medical Practitioners (GHAFTRAM), other research institutions and commercial organizations.
- iii. Collaborate with other institutions in the collation, documentation and dissemination of the outcome of research and other technical information.
- iv. Establish gardens for the production of medicinal plants, where necessary.

In line with its mission, the centre conducts research into herbal medicines with the intention of isolating the active constituents and providing appropriate formulations for dispensing. It undertakes this activity with the aid of a Research Committee, which supervises its research programmes. The committee's membership is drawn from the Universities, Research Institutions and the Ministry of Health. They include specialists such as SMPs, pharmacologists, toxicologists, biochemists and chemists.

The Centre is divided into nine departments: Photochemistry, Pharmacology, Toxicology, Microbiology and Plant Development. Other departments are the out-patient, clinical laboratory and drug production departments. These departments are staffed by a 23 member research staff made up of an SMP, phytochemists, and pharmacologists. The Plant Development

Department manages a herbarium and an arboretum which consist of four medicinal plants gardens.

As part of its outreach programme, the Centre has, in collaboration with Technoserve, an American Agri-business non-governmental organization, which is into sustainable Natural Plant Products, organized training programmes for traditional herbalists in contemporary techniques of producing herbal medicines.

The Centre affiliates with other research institutions. For instance, it conducts joint laboratory research in the production of herbal medicines with the Noguchi Memorial Institute for Medical Research (NMIMR). Its collaboration with NMIMR is aimed at establishing the toxicity, efficacy and mode of actions of herbal preparations such as *indigofera arrecta* and *Adenia* which are used to manage diabetes mellitus and hypertension. Recently the Centre and NMIMR have engaged themselves in an HIV and AIDS project. The purpose of the project is to ascertain the credibility of the herbalists who claim they have found a cure for HIV. Other institutions involved in this project are the Komfo Anokye Teaching Hospital (KATH) and St. Dominic's Catholic Hospital at Akwatia in the Eastern Region. Under this initiative some selected herbalists treat Persons living with HIV (PLWHIV) and the effects are positive. According to Essegbey (2002), the initial findings indicated that: conditions of a substantial number of the PLWHIV have improved; the frequency of opportunistic infections has reduced considerably, some of the PLWHIV have put on weight, whilst others have maintained their weight.

The future direction of the Center's activities is to improve on formulation of medicines and produce medicines in the form of capsules, tea bags and tablets. With the aid of the Commonwealth Secretariat's General and Technical Assistance Department, the Centre has purchased some equipment for the processing of herbal medicines in the form of bags and capsules.

Noguchi Memorial Institute for Medical Research (NMIMR)

Another institution that has contributed to the development of TM is NMIMR. The NMIMR was established as a semi-autonomous Institute of the University of Ghana in November 1979. The Japanese government constructed the buildings in which it is housed and donated them in memory of a renowned Japanese Medical Scientist, Dr. Hideyo Noguchi, who died in Accra, Ghana while conducting research into yellow fever in 1928. The institute organise its activities under nine research units. These are Bacteriology, Chemical Pathology and Haematology, Electron Microscope, Epidemiology, Immunology, Laboratory Animals Nutrition, Parasitology and Virology.

The personnel in the aforementioned departments are helping the institute to execute its mandate of conducting research into what NMIMR calls "priority health problems" in support of the delivery of health care programmes. The institute's research activities revolve around:

- i. Research into the problems of communicable illnesses and nutrition.
- ii. Training of postgraduate students in medical research.

- iii. Provision of specialized diagnostic and monitoring services in support of public health programmes.
- iv. Control and treatment of malaria.
- v. Research into HIV and AIDS and other sexually transmitted infections (STIs).
- vi. Primary healthcare and community illness surveillance.
- vii. Toxicity of traditional medicinal plants and aflatoxins.

With respect to research in aid of modernization of TM, the research staff has conducted several studies that have assessed the safety, efficacy and quality of TM. For instance, Nyarko, Asiedu–Gyekye and Sittie (2005), have produced a standard manual for assessing the safety, efficacy and quality of TM. The manual discusses safety tests such as acute toxicity, sub-chronic toxicity, chronic toxicity and teratogenicity. It also discusses quality assessment procedures such as general descriptive tests, general identity tests, purity tests, chemical assays and stability tests (shelf life) extensively and examines selected TM efficacy assessment models and procedures such as anti-hypertensive tests, anti-diabetic tests, anti-inflammatory tests and anti-ulcerative tests.

The College of Pharmacy of the Kwame Nkrumah University of Science and Technology

The College of Pharmacy of the Kwame Nkrumah University of Science and Technology, for the past 40 years, has been conducting investigations into

TM in Ghana (Fleischer, 2004). The research activities are concentrated on identifying active constituents of medicinal plants and also studying the practices of traditional healers. The investigations are also aimed at validating the therapeutic effect of herbal medicines and ascertaining local sources of raw materials for the production of medicines.

During the 2001/2002 academic year, the College commenced its novel Herbal Medicine Programme. This is a four-year Programme leading to the award of a Bachelor of Science degree in Herbal Medicine. The objectives of the programme are:

- i. To provide students with knowledge in human and plant sciences.
- ii. To equip students with clinical and diagnostic skills.
- iii. To appreciate the scientific basis for the treatment of illnesses with plant medicines.
- iv. To recognize the patient as an individual influenced by his or her cultural environment and therefore the need to offer him or her treatment.

The first batch of students who pursued the Programme passed out in 2005. Some of them are practising in various private herbal clinics and herbal medicine factories across Ghana as well as the Traditional and Alternative Medicine Directorate (TAMD) as medical herbalists. Others are also serving as research assistants at CSRPM and the Herbal Medicine Department of Kwame Nkrumah University of Science and Technology.

The Faculty of Science at the University of Ghana

The University of Ghana's Faculty of Science has, for sometime now, been involved in the modernization of traditional medicine in Ghana. The Faculty's Department of Botany has, in collaboration with the Centre for Scientific and Industrial Research (C.S.I.R.), executed a project named 'Herbs of Ghana', and Professor Ebenezer Laing, the then Head of Department supervised the project at its inception (Laing,1995). He and his team of researchers undertook a comprehensive taxonomic inventory of the herbaceous species of plants of Ghana. They came out with vernacular and scientific names of the herbs. They also identified the habitat, botanical description and the uses of these herbs. It was discovered that more than hundred species of the plants investigated had therapeutic properties.

The Departments of Biochemistry and Chemistry have also been actively involved in the verification of the efficacy and safety of numerous herbal plants. Professor Marian Ewurama Addy, formerly of the Department of Biochemistry, and her colleagues evaluated the healing effects of medicinal plants used to treat various illnesses. She reports in her book "Putting Science into the Art of Healing with Herbs" (2003), that the herb, *occimum canum*, or the hairy basil, known by the Akan as *akokɔ besa*, has anti-diabetic properties. Another scientist, Professor Ivan Addae-Mensah, (1992) a Phyto-Chemist, who before assuming the position of Vice-Chancellor was a Lecturer at the Department of Chemistry, reports that the plant commonly called candlewood in English and *Okanto* in Twi and *Xetsi* in

Government regulations and legislation

Traditional Medicine Practice Act

The passage of the Traditional Medicine Practice Act, 2000 (Act 575) is seen by most observers of the TM sector as an eloquent testimony of the government's commitment to modernizing traditional medicine. The main objective of the Act was to establish a Traditional Medicine Practice Council (TMPC) to regulate the practice of TM in Ghana. The Act empowers the Council to register all traditional medical practitioners, and license traditional healthcare institutions. It is also intended to regulate the preparation and sale of herbal medicines. It provides that the Council should specifically do the following:

- Set standards for the practice of traditional medicine (TM) in Ghana.
- Design and enforce code of ethics for the practitioners of TM.
- Issue a certificate of registration to a qualified practitioner and licence for a practice.
- Promote and support training in traditional medicine.
- Advise the Food and Drugs Board (FDB), in writing, on rules for the registration, advertisement, manufacture, packaging, preparation, labelling, sale, supply, exportation and importation of any herbal medicine.

- Approve, in consultation with educational and research institutions, the curriculum for training TMPs.
- Collaborate with the MoH to establish centres for the provision of traditional medical care within the national healthcare delivery system.

The Act also provides for the composition of the Council. It stipulates that the majority of its membership should be traditional medical practitioners. There should also be representation from the MOH, Research Institutes, the Universities and the FDB. Section 29 of the Act spells out the functions of the Registrar and the supporting staff. The Registrar is to take charge of the day-to-day affairs of the Council. He or she is also mandated to produce an up-to-date record of registered practitioners and licensed practices in the country.

The Code of Ethics and Standards of Practice

The Code of Ethics and Standards of Practice is a 13-page policy directive document published by the MoH in 2003 to help raise the standard of practice by TMPs. In the foreword to the code, the then Minister of Health, Dr. Kwaku Afriyie writes that the objective of the Code, “is to improve the quality of traditional medicine practices within the context of training and institution of professionalism” (MoH, 2003). The code is therefore meant to instill discipline, promote professionalism and ultimately improve the quality of service rendered to the public. The Code is grouped under four sections as follows:

- i. The responsibilities of traditional medical practitioners towards their profession.
- ii. The duties of traditional medical practitioners towards their clients.
- iii. The obligation of traditional medical practitioners towards their professional colleagues.
- iv. The responsibilities of traditional medical practitioners towards the general public.

In addition, the Code, inter alia, specifically expects TMPs to:

- a. Register with the Council to be licensed to practice TM.
- b. Pass a Professional Qualifying Examination designed to suit the individual in terms of type of practice, literacy and language.
- c. Disclose their identity and that of other persons including students, trainees and ancillary workers who may handle clients.
- d. Inform/educate clients on relevant policies and regulations in their facility.
- e. Be encouraged to join organizations/associations which have the objective for the advancement of the profession and shall make contribution to the advancement of their profession.
- f. Avoid descriptions which are either inaccurate or intended to belittle or embarrass other traditional medical practitioners.
- g. Adhere to fair business practices, meet their obligations promptly and fulfil their agreements and contracts.

The Food and Drugs Law

The Food and Drugs Board (FDB), established under the Food and Drugs Law, 1992 (PNDCL. 305 B), is essentially a regulatory institution that certifies the production and sale of safe and efficacious herbal medicines in Ghana. The FDB carries out tests on medicines including herbal medicines manufactured and imported into this country. A number of TMPs submitted their herbal preparations to the FDB for verification. Most of these preparations have been certified by the Board as safe and efficacious. The FDB, on its own, occasionally goes to the market and picks herbal preparations for verification. Medicines that do not meet its standards are withdrawn from the market.

Traditional and Alternative Medicine Directorate

The Traditional and Alternative Medicine Directorate (TAMD) is a unit within the Ministry of Health (MoH). Its mandate is to work towards the integration of TM into the national healthcare delivery system and initiate policies aimed at developing TM and eventually paving the way for its incorporation into the national healthcare system. In pursuance of its mandate, TAMD has been able to organize a large number of TMPs to constitute one body known as Ghana Federation of Traditional Medicine Practitioners (GHAFTRAM). As of now, GHAFTRAM consists of six TMP associations and it is hoped that other associations would join. The successful formation of this umbrella body, it is believed, would make it easier to monitor the activities of TMPs.

Furthermore, training programmes can easily be organized for its members to enable them to raise their standard of practice. As part of its mandate, TAMD also handles the activities of Complimentary and Alternative Medicine (CAM) practitioners such as practitioners of acupuncture as well as homeopathic, chiropractic and ayuverdic medicine.

Acceptance and promotion of TM by key stakeholders

Civil Society Organizations and their efforts at promoting TM

In terms of the scientific methods of practice and the environments in which TMPs operate, one can say that TMP has undergone tremendous change over the years. A good number of centres including the Pepease Bonesetting Centre and the Soafa Scientific Herbal Centre, whose activities we would discuss below, employ state of the art techniques in the preparation of their herbal medicines, which are in various forms such as syrup and powder. Apart from that they also ensure that they operate in neat and hygienic environments.

Pepease Bonesetting Centre

The Pepease Bonesetting Centre (PBC) is headed by Kwame Grushie Atialikeley, popularly known as Opanyin Kwame. He is supported by two assistants. Opanyin Kwame is a native of Navrongo in the Upper East Region of Ghana. He studied the art of bonesetting through apprenticeship training under the tutelage of his grandfather. He took over his grandfather's practice when the latter became incapacitated as a result of ill-health. Opanyin Kwame migrated from

Navrongo in 1960 and travelled to the southern part of Ghana to seek greener pastures. In the south, he got a job and served as a night watchman of the Ministry of Health for 17 years. Opanyin Kwame set up the above-named centre after he had retired from the Ghana Health Service (GHS) in 2001.

Operating from an environmentally-friendly large compound house, the PBC observes strict principles of hygiene, including the use of new bandages to bandage fractures of clients. Before attending to clients, who visit the centre with fractures, the centre ensures that these clients are taken to radiologists for X-Ray to determine what exactly is wrong with them. Those in pain are encouraged to take painkiller, while those whose fractures have developed sores are asked to seek scientific medical attention at clinics and hospitals. The centre uses herbs in the treatment of fractures which it can handle. Before applying the herbs and bandaging the fractured part of the body, the practitioner cleans the affected part with hot water which facilitates faster healing. Data gleaned from the attendance register of the Centre covering the period from 21-10-2005 to 10-08-2007 contained 1105 entries. For each entry the reason for admission was recorded in categories such as dislocation, sprain, compound fracture and massaging. It is significant to note that all these clients were effectively treated (Field Notes, 2007).

Soafa Scientific Herbal Centre at Nkawkaw

The Soafa Scientific Herbal Centre/Clinic, which is located at Nkawkaw in the Eastern Region of Ghana, was established by a TMP in the person of

Kwabena Asubonteng, a 50-year old man from Nkwatia-Kwahu. Kwabena Asubonteng, who acquired his knowledge about medicinal herbs from his father's traditional practice as well as from published works such as the Ghana Herbal Pharmacopoeia published by CSIR, is supported by two assistants charged with the responsibility of registering the clients and dispensing herbal medicines prescribed by the head. Although the Centre is a herbal clinic, it operates just like a scientific medical practice. On arrival at the Centre, clients are directed to the Records Department, where they are duly registered. After that they are issued with identity cards and then directed to go and see the TMP in the consulting room. Using modern diagnosis kits such as blood pressure equipment, thermometres and stethoscopes, Kwabena Asubonteng makes diagnoses of illnesses and prescribes herbal medicines manufactured and packaged in the form of powder and syrup to treat them. I was shown the case history cards of clients who had been successfully treated, covering the period from 10-06-2005 to 30-07-2007 which contained 871 entries. The entries indicated that clients presented illnesses such as malaria, diabetes, hypertension, piles, skin rashes, waist/body pains and STIs (Field Notes, 2007).

Traditional medicine has been practised in Ghana from time immemorial and many Ghanaians patronise the services of TMPs. The Government of Ghana and stakeholders such as TMPs and NGOs, realising the role and potential of TM in healthcare delivery, has formulated policies, enacted laws, and organised training programmes for TMPs. TMPs themselves have improved the packaging

and labelling of traditional medicines. Furthermore, they have submitted their medicines to the FDB for certification and registration.

The next chapter dwells on the theories and philosophies behind traditional and scientific medicines and forms of integration. It also discusses Ghana's health infrastructure.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter reviews the relevant literature on the integration of traditional medicine into the national healthcare delivery system in Ghana. It covers the following themes: principles that underlie the concept of integration; development of medicine globally and in Ghana in particular; the training of traditional medical practitioners (TMPs), their routine medical practices and how they diagnose and treat illnesses; and an examination of theories that informed the analysis of field data collected for the study.

Theory and Practice of Integration

Ghana has operated a plural medical system since the introduction of scientific medicine (SM) into the country in the early 19th century (Twumasi, 1975). The two dominant medical systems which are distinct and have operated side-by-side are scientific medicine and traditional medicine (TM). The former, as indicated earlier, was imported into the country from Western Europe in the early part of the 19th century. It received state support and has consequently become the official medical model with developed infrastructure, human resource and it is heavily funded by the state. The latter was an indigenous medical paradigm that

existed prior to the emergence of scientific medicine and has persisted up to today. It has been sustained mainly by private entrepreneurs and practitioners who have received little or no assistance from the state. The co-existence of TM and scientific medicine has led to the emergence of varied responses from governments in various countries (WHO, 2002). Experts at the WHO have identified three main types of government reaction by way of policies formulated and legislations enacted to guide the practice of TM in its member countries. In some countries TM has officially been recognized and incorporated into the formal healthcare structure. In such jurisdictions TM has a place in the state's national medicines policy, practitioners and their products are regulated, and TM medicines are available at hospitals and clinics (WHO, 2002). Additionally, the national health insurance scheme covers clients who receive traditional medical treatments; research in the TM sector is vigorously pursued and heavily funded by the state and other stakeholders from the private sector; and formal training of TMPs is available at Faculties of Pharmacy and Medical Schools of various universities. Countries that have sufficiently integrated TM into their national healthcare structure are China, the Democratic Peoples Republic of Korea (DPRK), the Republic of Korea, and Vietnam.

According to the WHO (2002), in countries such as Mali, Nigeria, Equatorial Guinea, United Kingdom and Germany, TM has not fully been integrated into the formal healthcare system. In these countries, official training and regulation of TMPs have been partial or lacking; health insurance does not

cover TM treatments; and research into TM has not been pursued vigorously. What these states do is to operate an inclusive healthcare system.

In countries such as Sudan, Egypt and Thailand where scientific medicine has been the dominant medical model, the governments have adopted a tolerant posture towards TM and TMPs. TMPs are permitted by law to operate in such countries but measures have not been put in place to integrate their practice into the healthcare system.

Concepts and Practices of Integration

According to Hyma and Ramesh (1994) the term “integration” lacks one precise definition. However, they define it as process of incorporating traditional medical practices into the formal health service. It also means introducing traditional medicines, techniques and empirical knowledge into the mainstream healthcare system. Furthermore, integration denotes the exposure of TMPs and SMPs to the philosophies behind the two medical systems.

Institutional integration

Hyma and Ramesh (1994:72) describe institutional integration as the “process in which formal health services begin to incorporate and work with TM for the benefit of the whole population”. Under institutional integration, TM is given an official recognition through policies and legislation. The WHO’s report cited in Hyma and Ramesh (1994) notes that institutional integration has usually been triggered off at Primary Health Care (PHC) level by the prevalence of

conditions such as inadequate resources in terms of personnel, buildings, materials and finance. The report further notes that this situation leads to the emergence of two main forms of institutional integration at the PHC level: partial and total institutional integration. Partial institutional integration refers to the situation where a mutual referral system is established between TM and scientific medicine at the PHC level. In such a system TMPs refer cases which can effectively be treated by scientific medical clinics and hospitals, whilst scientific medical practitioners(SMPs) also refer cases such as fractures, mental and psychological disorders to TMPs. Total institutional integration can only be found in China where trainee TMPs are exposed to the theoretical and practical orientation of SMPs, and in the same vein students in Scientific Medical Schools are also taught the philosophical underpinnings of traditional medical practice.

Institutional integration has proven to be very beneficial to both TMPs and SMPs, because through it the two healthcare providers learn from each other and have a harmonious co-existence. It also promotes increase in the numerical strength of the practitioners, thereby eventually widening the healthcare coverage for the population. Notwithstanding these numerous benefits that can be derived from the implementation of institutional integration as enumerated above, it should be noted that the practice is fraught with some problems. One major weakness is that, with the exception of China, TM and TMPs usually occupy a subordinate position wherever institutional integration policy has been implemented (Hyma & Ramesh, 1994).

Cognitive integration

Integration may also mean TMPs and SMPs learning and exchanging background knowledge and skills of TM and scientific medicine (Hyma & Ramesh, 1994). In other words, background knowledge and skills such as philosophies and theories behind illness causation, diagnostic and treatment methods of TM and scientific medicine are learnt and exchanged by TMPs and SMPs. According to Hyma and Ramesh (1994), cognitive integration is usually achieved by organizing TMPs and exposing them to the basic knowledge and skills of scientific medicine. The WHO states that it is also achieved by incorporating TM into the curricula of medical schools and other health training institutions and teaching the students TM (WHO, 2002).

Consumer engendered integration

Consumers' choice of healthcare services in a pluralistic medical system could stimulate integration (Bodeker, 2001). As Bodeker (2001) has observed, consumer engendered integration (CEI) usually emerges spontaneously mainly due to clients' movement from one medical system to another or the simultaneous utilization of several systems at the same time. The multiple uses of healthcare services, as Twumasi (1988), Senah (1997) and Bonsi (2000) note, may be due to a perception of the effectiveness of treatment and nature of the illness. Similarly, the 'shopping' for health care services in a pluralistic medical system has been attributed to "cost, time needed to care, expectations of long term cure, previous knowledge, beliefs, familiarity, experience and social contacts" (Hyma

&Ramesh,1994:78). For example, in Ghana, individuals who suffer fractures access the services of both TMPs and SMPs. For instance, clients with fractures who visit PBC, the traditional bonesetting clinic in the Eastern Region of Ghana mentioned above, are asked to see radiologists for X-Ray for an accurate determination of their problems. Apart from that, clients in pain are offered pain-killers and those whose fractures have developed sores are referred to clinics and hospitals run by SMPs for needed attention (Field Notes, 2005).

Integration through adaptation

Another form of integration has emerged from the attempt by some TMPs especially those who have received training in some aspects of scientific medical practices to supplement traditional medical practice with ideas and technology from scientific medicine, which Twumasi (1975:120) in his study of Medical Systems in Ghana designated as ‘adaptation of traditional medical practice’. According to Twumasi (1975), adaptation of traditional medical practice (hereafter called adaptation) appears in two main forms: non-structural and structural. In the non-structural sphere the TMPs adopt modern paraphernalia of scientific medicine such as telephones, business cards, reception rooms, consulting rooms and the use of white over-all coats. Others also make use of modern computers and diagnostic kits such as thermometers, stethoscopes and X-Rays. Twumasi (1975) has suggested that the main motivation of TMPs in adopting these modern paraphernalia of scientific medicine is to make their practice attractive to consumers. At the structural level of adaptation, Twumasi

(1975) has argued integration is manifested in the emergence of division of labour in the practice of the TMPs. Clients who present minor illnesses such as fever, abrasions, headache and sprain are attended to by assistants of TMPs due to increased number of clients who visit them.

Philosophy of scientific medicine

Medical historians have argued that scientific medicine began in the nineteenth century in Western Europe (Coe, 1970). The dominant medical paradigm at that time was anchored on the notion that the human body was just like a machine that could be analyzed in terms of its parts. This mechanistic view of humankind led to the consideration of the human body as the main object of study by SMPs. Illnesses were seen as a result of the breakdown of the machine and the SMPs' task was to mend it. Scientific medicine was based on the premise that illnesses are explained rationally in terms of cause and effect. The cause of an illness was seen as natural in contrast to supernatural. In effect, the causation of illness by supernatural powers has no place in scientific medicine (Twumasi, 1975).

According to Annandale (1998), scientific medicine was thus, characterized by three main features: reductionism, doctrine of unitary etiology, scientific neutrality and objectivity. Reductionism assumes that health and illness are natural phenomena which exist in an individual's body, rather than being the result of an interaction between the individual client and his/her social world.

Clinical signs and symptoms are, therefore, seen as objective and independent of a person's experiences and interpretations.

The doctrine of unitary etiology assumes that illnesses are the product of a single specific causal factor. For instance, malaria is seen as an illness caused by a bite of a female anopheline mosquito, whereas tuberculosis is caused by mycobacterium tuberculosis (MOH, 2004). This doctrine has spread to other areas where the lack of some hormone or nutrient is held to cause illness. For example, a child who does not eat enough proteins may develop kwashiorkor. But as Dubos (1960) has argued, the doctrine fails to explain fully the multifactor effects of social environment on health. She has drawn our attention to the fact that almost all people could be exposed to infectious agents, but not all people get sick.

The third feature of scientific medicine is the claim of scientific neutrality and objectivity. This implies that scientists must not allow their personal biases to affect the conduct of their scientific studies. In other words, scientists must not take sides on any issue they are investigating. Annandale (1998) recognized that scientists, like everyone else, have individual biases and moral convictions regarding human behaviour, but their calling requires them to put aside their preconceived ideas, beliefs and values about cause of illnesses and rely more on observation and experimentation in order to ascertain the natural causes of an ailment. In this way, medicine's claim to be rational, objective and value-free has been criticized as not tenable. Waldby's study of healthcare practitioners' attitude towards Persons Living with the Human Immunodeficiency Virus

(PLWHIV) demonstrates that medicine always reflects and reproduces the dominant ideas and values of the society of its time (Bonsi, 2007).

These principles or philosophies date back to the ancient Greeks, even though scientific medicine, according to medical historians such as Cochrane (1996) and Cockerham (1992), emerged in Western Europe in the late eighteenth century. They were developed by distinguished physicians and philosophers such as Hippocrates, Aristotle and Galen. Hippocrates was arguably the most famous of the Greek SMPs and teachers. Evans–Anfom (1986) is, therefore, of the view that he merits the accolade “father of medicine”. He was born about 460 B.C. and died in 370 BC. He established a Medical School on the Island of Cos, his birth place, where he taught his students that every illness had its own nature and arose from external causes such as cold, the sun or changing wind. He also emphasized that symptoms preceded a particular illness and that the body could cure itself in many cases. He wrote several medical books which contain his medical ideas and principles. One of these principles was the Hippocratic Oath, which he insisted his students should strictly follow, and incidentally, modified versions are administered to all newly qualified SMPs in Medical Schools throughout the world. The oath is still regarded as the standard ethical code for all SMPs. All SMPs still agree to abide by the essential parts of it, which read as follows:

The regimen adopted shall be for the benefit of my patients according to my ability and judgment and not for their hurt or for any wrong.

I will give no deadly drug to any, though it be asked of me, nor will

I counsel such, and especially I will not aid a woman to procure abortion. Whatsoever house I enter there will I go for the benefit of the sick, refraining from all wrong doing or corruption and especially from any act of seduction of male or female of bond or free. Whatsoever things I see or hear concerning the life of men in my attendance on the sick or even apart therefrom, which ought not to be noised abroad, I will keep silence thereon, counting such things to be as sacred secrets (Evans-Anfom, 1986:3).

In Ghana as well as other parts of the world, the names of SMPs, who breach these parts, are struck off the medical Register by the regulating bodies of SMPs such as the Medical and Dental Council of Ghana.

Although Aristotle was not an SMP but rather a scientist and philosopher, he also contributed immensely to the development of medicine. He propounded a four-dimensional theory that claimed that the human body was controlled by four humours or fluids which were blood, yellow bile, black bile and phlegm (Cochrane, 1996). He argued that a balance of these humours produced a completely healthy body. On the other hand, when an individual ate poor diets or if he or she felt too cold or became wet, then the humours became imbalanced; hence illness ensued.

Claudius Galen, a Greek physician who practised in Rome, also contributed to medicine, as he discovered in his studies that the body could heal

itself with the aid of herbal medicines. It is interesting to note that some of his herbal medicines are still in use today and are called Galenicals (Cochrane, 1996).

According to Evans-Anfom, the “discovery of the circulation of the blood by William Harvey marked the beginning of scientific medicine” (Evans-Anfom 1986). He points out that although the scientific community knew that blood circulated inside the human body, it was Harvey who demonstrated it through his experiments on how it happened in the human body. Harvey published a book in which he clearly indicated that the heart pumped blood through arteries to all parts of the body and that the blood returned to the heart through the veins.

Evans-Anfom also points out that the discovery of the microscope by Anton Van Leeuwenhoek played a major role in the evolution of medicine. This was because it “aided in the study of the minute cellular structure of tissues and organs” (Evans-Anfom, 1986). He goes on further to state that the discovery of the germ theory of illness by the French bacteriologist, Louis Pasteur, was one of the most important landmarks in the evolution of scientific medicine. Pasteur, who was born in 1822 and died in 1895, discovered that many illnesses were caused by germs that multiplied in the body. He also proved that these germs could be killed by heat and certain powerful chemicals. He further proved that if germs were weakened in an animal’s body, the animal developed immunity to the germ. He called this method of fighting germs vaccination or immunization. Pasteur demonstrated the value of immunization by vaccinating sheep against a illness called anthrax. He also showed that vaccination could be used to prevent

chicken cholera. Eventually he was able to develop a vaccine that was used to prevent rabbies in 1885.

To conclude the discussion on the development of scientific medicine, Evans-Anfom (1986) examined new medicines which were developed to combat various illnesses. Medicines which have helped in the fight against germs include sulphonamide (M&B) and antibiotics, of which penicillin, first discovered by Sir Alex Fleming, an English bacteriologist in 1928, has been the most famous.

In conclusion, one can say that scientific medicine was founded on the notion that illnesses are caused by pathogens. The duty of a practitioner is to arrive at the correct diagnosis, and based on that prescribe the most appropriate remedy and eventually restore the client to his or her former health status.

Development of scientific medicine in Ghana

Having examined the philosophy of scientific medicine, we turn our attention to the emergence of scientific medicine in Ghana. Scientific medical services became available in Ghana during the colonial era which formally commenced in 1844 (Twumasi, 1975; Senah, 1996; Bonsi, 2000). It was in this year that a group of Fante chiefs and the British signed a defence treaty, which officially made the Gold Coast a British territory (Buah, 1998; Boahen, 2000). Senah (1996) has observed that the signing of the Bond of 1844 brought some amount of peace and stability to the Gold Coast colony, especially the coastal areas. Consequently, it promoted economic and missionary activities in those areas, which ultimately increased the presence of Europeans in the Gold Coast.

This therefore necessitated the recruitment of medical officers to attend to the European personnel (living in the castles) who were perishing due to dreadful and unfavourable ecological conditions. These European medical officers, who were stationed in all the forts and castles along the coast of Ghana, initially attended to only European personnel in the Gold Coast. They started offering medical services to the natives only after the establishment of the first hospital in the Gold Coast at Cape Coast in 1868 (Ewusi, 1989).

Twumasi (1975) has noted that scientific medical practice did not enjoy a smooth inception. The difficulties that the new medical system faced were on two main fronts; firstly, the social system, according to Twumasi (1975), was not adequately prepared to support the new medical model. As a result it was difficult to recruit people to be trained as medical personnel. This was because most job seekers did not possess the basic educational background which would have enabled them to communicate with their clients who were mainly European colonial administrators as well as the European medical officers. Moreover, the traditional cosmology, which supports the supernatural causation of illness, was opposed to the scientific explanation of illness. Secondly, the new medical system was strongly opposed by some of the indigenous people during the early period of the 1920s, especially TMPs and political activists who were mainly members of the Aborigines Rights Protection Society (ARPS). This group of people strongly opposed the colonial government's policy of health services expansion. Ayivor (1985) has noted that in 1929, the TMPs led by Kobina Sakyi, a barrister opposed, the healthcare programme instituted by the then Governor, Sir Gordon

Guggisberg, due to the persisted rumour that when Korle-Bu Hospital in Accra was completed, traditional medicine would be banned. They formally presented a protest letter to the Governor. As a result, of this action taken by the group, the colonial government banned traditional medical practice in the cities and urban areas. The practitioners could only ply their trade among the indigenous people in the villages. The TMPs angrily replied that the European SMPs should also leave Korle-Bu Hospital and practise among their European kith and kin. This stand-off was eventually resolved by the intervention of some prominent traditional leaders such as Nana Sir Ofori Atta I, the paramount chief of Akyem Abuakwa. TMPs were therefore allowed to practise in the towns and cities upon obtaining a license from the Municipal Councils.

In spite of these initial difficulties, scientific medical practice gained recognition and acceptance among the indigenous people because it was able to deal successfully with various tropical infectious illnesses such as malaria, yaws, yellow fever, sleeping sickness and worm infestation (Twumasi, 1975). As Twumasi (1975) has noted, its acceptance was reinforced through the processes of formal education, changes in residence and access to higher income.

Following Ghana's attainment of political independence in 1957, scientific medical services were extended to all parts of the country. The Nkrumah-led government built health centres throughout the regions except Western and Central Regions. Clients from these two regions had to visit the Korle-Bu Hospital in Accra for medical attention (Twumasi, 1975). At independence, there were only ten health centres in the country. However, more health centres were

established and, by 1963, there were 41 centres operating in all the regions of the country.

In addition to these health centres, Medical Field Units (MFU) was also established to help control many of the environmental illnesses which were rampant at the time. The units were also tasked to educate Ghanaians on the use of medicines. That means these mobile medical services provided services at the doorstep of the people in the remote parts of the country.

Scientific medical institutions and services

Scientific medical services in Ghana are provided by health institutions owned by private individuals, organisations and the state. The nature of the health institutions and services offered by the aforementioned stakeholders in the scientific medical sector are discussed below.

The Private Sector

Health institutions owned by the private sector include those owned by not-for-profit church organisations that are under the umbrella organisation called Christian Health Association of Ghana (CHAG) (CHAG, 2006) and profit-oriented private clinics, hospitals and maternity homes. CHAG's member institutions are located mainly in the rural communities with the intention of reaching out to the poor in the Ghanaian society. However, a few are found in the major towns and cities in the country (CHAG, 2006). CHAG institutions provide curative, preventive, promotive and rehabilitative services. CHAG's healthcare

facilities situated in the rural areas provide primary level curative and also few specialized services such as ophthalmic and gynaecological care. Presbyterian Hospital at Agogo in the Ashanti Region is noted for providing excellent eye care services, while St. Joseph's Hospital at Koforidua in the Eastern Region is considered a centre of excellence in orthopaedic services (CHAG, 2006). The primary health care services CHAG's member institutions offer include immunization, family planning, maternal and child health services and health education. CHAG is made up of 16 churches which include the Presbyterian Church of Ghana (PCG), The Seventh- Day Adventist Church (SDA), The Methodist Church Ghana and the Catholic Church. These churches run a total of 56 hospitals, 83 clinics and 8 nurses training institutions (CHAG, 2006). It is noteworthy that 50% of the staff is paid by the Government and the rest draw their salaries from the coffers of CHAG. Table 1 shows a breakdown of the member institutions of CHAG.

Table 1: Breakdown of CHAG Institutions

Denomination	Hospitals	Clinics/PHC	Programmes	Schools	Total
Catholic	33	39	3 N =3 M		78
Presbyterian	4	15	2 N		21
Evangelical					
Presbyterian	2	5	7		
Anglican	-	8	8		
Methodist	2	3	5		
Salvation Army	0	8	8		
Baptist	1	-	1		
Assemblies of God	2	1	3		
World Evangelical Crusade	-	1	1		
Seventh-Day Adventist	7	2	9		
Church of Pentecost	4	3	7		
Church of God	0	1	1		
Church of Christ	0	1	1		
Siloam Gospel Mission	0	1	1		
AME Zion Mission	1	-	1		
Global Evangelical Church of Ghana	1	-	1		
Total	56	89	8		152

Key: N=Nursing Training School. M=Midwifery Training School.

(Source: CHAG Annual Report, June 2005-May 2006)

Other religious organizations such as the Ahmadiya Muslim Mission also run healthcare facilities in the country. Institutions such as the universities: the University of Ghana, the Kwame Nkrumah University of Science and Technology in Kumasi and the University of Cape Coast operate modern hospitals with state-of-the-art equipment. These healthcare facilities serve the universities and the nearby communities. The security services such as the Police, the Military and the Prisons Service also run hospitals and clinics. The Police Service, for instance, runs a modern hospital in Accra and clinics in all the other nine regional capitals in Ghana. The Military also runs one of the best hospitals in Ghana called the '37 Military Hospital' which serves both the military and civilian population in the Accra Metropolis and beyond. A Nurses Training College which trains service personnel who want to become professional nurses is also attached to the Hospital. State Enterprises such as Volta River Authority (VRA), Social Security and National Insurance Trust (SSNIT) and Ghana Cocoa Board (COCOBOD) have established hospitals and clinics which provide healthcare services to their staff and the general public.

The private-for-profit health service sector provides substantial medical services to people resident in several large cities and towns, particularly to the wealthier classes of the society who prefer not to use the overcrowded facilities of government hospitals, polyclinics and out-patient departments (OPD). Medical services in these private health facilities are provided by qualified health professionals. According to Ainoa (2002), 65% of staff of these private healthcare facilities are qualified scientific medical practitioners and 22.3% are

trained midwives. In the case of nurses, a 1999 survey showed that specialist nurses such as theatre nurses, mental health nurses, ear, nose and throat nurses and public health nurses practise within the sector. Some qualified pharmacists also practise in private healthcare institutions. Some of the notable private healthcare facilities in Ghana include Nyaho Clinic, Holy Trinity Clinic and Rabito Clinic, all located in Accra.

Since most private health facilities are located in the urban areas and they charge relatively high fees for their services, they have little relevance to the residents of the rural communities in Ghana. A majority of Ghanaians who access scientific medical service rely on health facilities supported by the Ministry of Health (MoH). It is, therefore, necessary, at this point, to provide some insights into the role and responsibilities of the MoH and health institutions under it.

The Ministry of Health

The Ministry of Health (MoH) is the body that oversees healthcare delivery in the country. The MoH is responsible for designing broad policies so far as healthcare delivery is concerned in the country. It is assisted by two major agencies in the discharge of its responsibilities. These are the Ghana Health Service (GHS), which manages public health facilities, and, Teaching Hospitals, which are located in Accra and Kumasi (Ahmed, 2007). The GHS manages health facilities such as regional hospitals, district hospitals, health centres, maternity homes and the three psychiatric hospitals (Twumasi, 1975). These health facilities are described in detail below.

Regional Hospitals

Regional Hospitals are usually modern, fully equipped health facilities with a full complement of specialists and general duty medical officers (Twumasi, 1975). They are located in the regional capitals of the ten regions of Ghana and serve as referral hospitals where complex hematological, parasitic, biochemical, and bacteriological cases are managed (Twumasi, 1975).

District Hospitals

District hospitals are relatively small in size and are scattered across the country. Usually, they are not as fully equipped as the Regional Hospitals (Twumasi, 1975). They are internally managed by medical superintendents who are assisted by hospital administrators and other technical staff such as physicians, surgeons, pharmacists, radiologists, laboratory technologists, nurses and ward orderlies or ward assistants. The orderlies take care of the domestic and basic cleaning work (Twumasi, 1975). The main clinical focus at the district hospital is on the serious and complex medical problems referred by paramedical and auxiliary personnel from the health centres and health posts in the districts. It should be noted that not every district in Ghana has a district hospital. For instance, some of the newly created districts such as Assin South and Kwahu West districts of the Central and Eastern Regions respectively do not have districts hospitals. The total bed state of the district hospitals in the country stood at 7026 as at the end of the year 2005. Table 2 depicts the bed state of the District Hospitals, region by region.

Table 2: Bed State of District Hospitals in the Regions as at 2005

Region	Total Bed State
Greater Accra	683
Ashanti	932
Brong Ahafo	252
Central	678
Eastern	1180
Northern	340
Upper East	575
Upper West	493
Volta	1137
Western	756
Total	7026

Source: CHAG Annual Report, June 2005-May 2006

Health Centres

In Ghana, health centres are mainly located in the rural communities and smaller towns. These facilities provide fewer and less complex, out-patient services to the people (Twumasi, 1975). The main functions of the health centres are: to promote healthy living conditions, emphasize prevention through immunization, teach better child-feeding practices and carry out early diagnoses of illnesses, and also to be curative by treating minor ailments which would otherwise have to be referred to hospitals (Twumasi, 1975). None of the health

centres is permanently staffed by physicians, so professional services are provided on a visiting basis. The health centres are mainly staffed by paramedicals and/or auxiliary staff, of which there are usually four kinds, namely midwives, who look after problems of maternity and childhood illnesses; sanitarians, who are responsible for environmental control, public health and health education; nurses, who are trained as community health nurses with responsibilities in both the centre and the whole community; and superintendents, who act as medical assistant trained for diagnosis and management of single medical problems (Twumasi,1975). However, typical health centres are staffed by health centre superintendent, several nurses of various kinds, midwives, health inspectors or sanitarians, nutritionists and dispensers, laboratory assistants, dressers (who sew and bandage wounds), and supporting personnel composed of record clerks and labourers (Twumasi,1975).

The centres are headed by Superintendents, whose training consists of one year at special Health centres superintendents' school, usually at Kintampo Rural Health Training School, after ten year's practice as a nurse. During the training the candidates are taught to recognize the common conditions by signs presented and the corresponding course of therapy to be undertaken for them (Twumasi,1975). They are also sensitized to recognize when problems are likely to be beyond their medical knowledge and a referral to a hospital or to the next visit of a medical officer is desirable. At a busy centre, they usually attend to about 200 patients in six or seven hours a day (Twumasi, 1975).

In addition to the formal health facilities described above, Pharmacies and Drug Stores or Chemical shops also serve as sources of healthcare to Ghanaians. It is therefore important that we examine the nature of services Pharmacies and Drug Stores offer their clients.

Pharmacies

Pharmacies dispense medicines to people who are unwilling to wait for long periods at a hospital, clinic, or health centre. Pharmacies are managed by resident pharmacists who are authorized to sell both prescription and non-prescription medicines. Prescription medicines refer to those medicines recommended by a qualified medical practitioner while the non-prescription ones are medicines that can be bought over the counter.

Pharmacists in Ghana are sometimes called ‘doctors’ in smaller communities, where they diagnose and treat symptoms of patients on daily basis. They refer serious cases to the general hospitals.

Drug Stores

Drug Store operators sometimes called ‘druggists’ in Ghana are individuals who have been granted licence by the Pharmacy Council to sell drugs to residents of smaller communities. Drug stores are allowed to operate in communities where there are no pharmacy shops. To qualify to operate a drug store, one must have obtained, at least, a basic education of, at least nine years and, also, basic knowledge of drugs. Druggists are not allowed, under their

license, to dispense prescription medicines. However, some druggists sell herbal medicine in addition to scientific drugs. Some of them offer treatment to patients suffering from minor ailments such as headache and fever. They refer patients suffering from serious ailments to health centres or district hospitals. These, in turn, may refer patients to the larger regional hospitals, which may, in turn, refer particularly difficult cases to either the Korle-Bu Teaching Hospital (KBTH) in Accra or Komfo Anokye Teaching Hospital (KATH) in Kumasi

Teaching Hospitals

As mentioned above, there are two teaching hospitals in Ghana, namely the Korle-Bu Teaching Hospital (KBTH) in Accra and Komfo Anokye Teaching Hospital (KATH) located in Kumasi. These hospitals are well endowed in terms of equipment and personnel. According to Ahmed (2007), teaching hospitals “provide medical training to medical students and residents”. In other words, they serve as classroom and laboratory for SMPs, nurses and other auxiliary staff. Ahmed has further explains that they provide both primary and specialised services to the general populace. The bulk of the country’s medical specialists are located in these two Teaching Hospitals (TH). According to Act 525 which regulates the operations of the hospitals, THs are to provide advanced clinical health services to the people. For example, people with cardiac problems can only be helped at the cardiothoracic centre at KBTH.

Training of Scientific medical practitioners

Even though medical services were started as far back as 1783, the training of medical officers in Ghana started in 1962 (Addae, 1996). It is noteworthy that as far back as 1913 Governor Hugh Clifford proposed the establishment of a medical school to train more African medical staff to serve in the expanding colonial medical service. This dream was revived in 1924 by Governor Guggisberg when Korle-Bu Hospital was built. The plan was that a medical school was to be attached to the new hospital; unfortunately this dream materialised forty years later (Addae, 1996).

According to Addae (1996), the University of Ghana Medical School, (UGMS) then known as the Ghana Medical School, was designed, developed, financed and managed largely through Ghana's own material and human resources and efforts, after the government of Ghana had abrogated an agreement with the U.S. government to assist her establish a medical school. In spite of the absence of America's assistance, the UGMS, as Ewusi (1989) has pointed out, "...stands as an outstanding example of national self-reliance". Entry into the UGMS is very competitive as only exceptionally bright students gain admission into it. This has contributed to the swift attainment of academic and professional excellence (Addae, 1996).

The university entrance requirement is such that only the best science students with an aggregate of less than 8 for the six (6) subjects they presented at the West African School Certificate Examination (WASSCE) are admitted.

In 1978, a second Medical School was started at the then University of Science and Technology, now Kwame Nkrumah University of Science and Technology (KNUST) located in Kumasi (Addae, 1996). The School of Medical Sciences (SMS) at KNUST designed its programmes in such a way that students graduate in a Bachelor of Science in Human Biology before proceeding to complete the clinical programmes.

In addition to the training of SMPs, the Kwame Nkrumah University of Science and Technology since 1953 has also trained pharmacists who are taking care of the various healthcare facilities in Ghana. In fact, the Kwame Nkrumah University of Science and Technology's Faculty of Pharmacy has been the only institution that trains pharmacists in Ghana, although Kumasi Polytechnic for sometime now has been training Dispensing Technicians.

In the 1990s a new university was established in the northern part of Ghana. This university is known as the University for Development Studies (UDS). The UDS also started offering medical education at its Tamale campus. The students complete a Bachelor of Science programme at UDS and then complete their clinical studies at either KATH or KBTH since the Tamale Regional Hospital has not been accredited as a Teaching Hospital. It is noteworthy that, the University of Cape Coast (UCC) has established a School of Medical Sciences in the 2007/2008 academic year. At present one hundred and fifty students have been enrolled to read medicine which will lead to the award of a Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) degree. The 37 Military Hospital and the Presbyterian University College are preparing to

introduce medical programmes in their institutions. If the intentions of these institutions materialize it will go a long way to increase the training of SMPs in the country.

The Training of Auxiliary Personnel

The auxiliary personnel, we will be discussing here, are mainly the nursing staff. Nurses constitute the bulk of the health professionals in this country. According to the MoH's Service Availability Mapping (SAM) report (2007), there were 6599 nurses working in Ghana as at 2007. The nursing personnel, according to Twumasi (1975), are made up of general nurses, mental health nurses, public health nurses, midwives, and nursing educators. Addae (1996) reports that the first two nurses set foot in Ghana in 1878 were Europeans. Later on, others joined and this marked the beginning of nursing in Ghana. These European nurses were assisted by male orderlies. This suggests that initially nursing was a male dominated profession. These male orderlies were recruited to bathe, feed the sick, dress wounds, and to administer medicines to the indigenous people under the supervision of medical officers. Addae (1996) has observed that four main reasons account for the initial hiring of males. Firstly, and arguably, the educated males outnumbered females at that time. Secondly, until girls' schools began to be established, parents were reluctant to send their daughters to schools largely dominated by boys. Thirdly, there was this attitude that nursing was menial work, which involved physical contact and handling of sick people who were total strangers. Fourthly, the reward in terms of salaries was very low.

This reason is a bit problematic because it does not explain why women were reluctant to enrol in a profession which was not rewarding but men readily enrolled themselves.

Nursing education began in 1899 when the British nursing sister based in Accra started offering in-service training to the orderlies. Those orderlies who were literate were given lessons in Human Anatomy, Physiology, Surgical and Medical Nursing and First Aid Techniques. The trainees who were successful were awarded Director of Medical Services Certificate and given Civil Service appointment, starting as 2nd division nurses. This sort of training could not help to train the nurses in their right numbers and qualities and a real Nursing School was opened in 1945 at Kumasi; later another one was opened at Korle-Bu in Accra. According to a handbook on health training institutions in Ghana issued by the Human Resource Directorate of the Ministry of Health (MoH), there are fifteen General Nurses Training Colleges (NTC) being run by the MoH presently. Of these fifteen Nurses Training Colleges, nine are owned solely by MoH while the remaining six, which are assisted by the MoH, are owned by religious organizations such as the Catholic Church, Presbyterian Church and the Seventh - day Adventist church. Two MoH assisted training institutions offer programmes in Mental Health and Psychiatric Nursing at the Diploma level. These colleges are located at Pantang near Accra and Ankaful in the Central Region. Ten other colleges located in Atibie, Jirapa, Sekondi, Korle-Bu, Kumasi, Cape Coast, Berekum, Bolgatanga, Mampong-Ashanti and Hohoe offer basic Programmes in General Nursing and also at the diploma level. Moreover, the Nurses Training

College at Korle-Bu offers Post Basic nursing programmes in public health nursing, ophthalmic nursing, peri-operative nursing and critical care nursing. Post-basic specialised programmes such as ear, nose and throat (ENT) nursing and nurse anaesthesiology are offered at the Kumasi NTC.

The private sector has entered into the training of nurses in Ghana. At present there are five Nursing Colleges which have been given professional accreditation and recognised by the Nurses and Midwives' Council (NMC) to train professional nurses and clinical healthcare practitioners (Health Assistants). These institutions are fee-paying and include the following: Western Hills School of Nursing located at Ofankor near Accra, Narh-Bita School of Nursing situated at Tema in the Greater Accra Region, Health Concern also located in Accra, Nyaniba School of Nursing in Accra and Premier Nursing School in Kumasi. Similarly, the 37 Military Hospital Nursing College, owned by the Ghana Armed Forces, offers nursing programmes to serving officers who have the desire to become professional nurses.

The discussion indicates that Ghana's scientific medical service dates back to the colonisation of the country by Britain in 1844 when British medical officers were posted to the Gold Coast to take care of the colonial administrators (Twumasi, 1977; Ewusi, 1989; Addae, 1996). The scientific medical practice since then has enjoyed the support of the government. This is in terms of financial resources and it being declared as the official healthcare system in Ghana (Sarpong, 2008). Its practitioners therefore enjoy professional monopoly on medical practice in the country. By virtue of their monopoly over medical

practice, SMPs have exerted enormous influence over the entire field of medicine including the right to define what constitute an illness and how to treat it. In addition, the monopoly includes the right to limit and evaluate the performance of most other healthcare workers. This therefore explains why some SMPs perceive TM as inferior and will not want to have anything to do with it. Acceptance of TM and TMPs as partners in the healthcare service may lead to a decline in prestige and economic position they occupy in formal healthcare system.

Having examined the evolution of scientific medicine and its infrastructure thoroughly, we will turn our attention to Traditional Medical Practitioners. Under this section we will examine the types of TMPs practising in Ghana and their peculiar philosophies and therapeutic practices.

Philosophy of traditional medicine

Traditional medicine, as practised in Ghana and other parts of Africa, was founded on the belief that human beings were “tripartite beings consisting of mind (soul), body and spirit” (MoH, 2005:3). Human beings’ enjoyment of good health therefore hinges on promotion of harmony among the body, mind (soul) and spirit (Twumasi, 1975). The pace of activity in the physical world is largely influenced by the pace of activity in the supernatural world. In particular, it is believed that the health of a human being has something to do with the metaphysical world inhabited by God (creator), divinities and ancestral spirits (Twumasi, 1975). According to Twumasi (1975), illness causation has therefore spiritual and natural dimensions. In this regard, illness is the consequence of human beings’ inability

to establish harmonious relationship with the supernatural world, reflected in anti-social behaviours that breach societal norms. Despite the dominance of the belief in the supernatural causation of illness, TM has enormous room for natural causation of illness (Twumasi, 1975). As Twumasi (1975) has pointed out, TM recognizes that certain ailments are caused by microbes in our environment and TMPs “have a stock of remedies with which to treat illnesses and some have scientific validity”. These remedies and therapeutic practices include: bandaging of wounds, setting and bounding fractures, and the use of stimulants and sedatives.

Diagnostic Procedures

For a TMP to be able to respond appropriately in terms of offering efficient therapy to an ailment, the correct diagnosis of the ailment should be established.

Bonsi (1973) in a survey of the traditional medical practice in modern Ghana observed many forms of diagnostic procedures as briefly discussed. Firstly, causes of illness could be guessed through spirit possession whereby a traditional priest or priestess (but usually priestesses) would be possessed and the cause of the client’s illness would be revealed to them. Secondly, the TMP could use divination to identify the cause of an illness. Divinatory procedures involve water gazing or mirror gazing through which the reflection of the culprit or the source of the illness could be revealed as well as the prescribed treatment. Finally, the TMP can also probe or question the patient and / or any relative or friend

available about what the patient is worried about, who might be the enemy or whether s/he has committed any crime. If it is confirmed that the patient has done anything untoward, the practitioner needs to alter it before the patient can be healed. Any of the above procedures may help a practitioner to diagnose the cause of the client's illness. We shall therefore discuss the various causes of illness under Traditional Medicine.

Causes of Illness under Traditional Medicine

Fosu (1981), in a study conducted at Berekuso located in the Akuapem South District in the Eastern Region of Ghana, investigated the people's knowledge of the causes of illnesses that afflict them. A total of 308 respondents were interviewed about what they considered to be a illness, how they classified illnesses and what the causes and treatment of illnesses were. The study identified three main causes of illnesses.

Firstly, illnesses such as malaria, diarrhoea and measles are considered to be caused by natural agents. He reported that the people of Berekuso considered natural agents such as "...worms, insects and animals; inherently unhealthy environments, rapid changes in climate and undue exposure to excessive cold or heat, unhealthy lifestyles such as eating spoiled food and imbalanced diet, as well as the malfunctioning of specific organs" (Fosu, 1981: 475) as the natural causes of illnesses. Hereditary illnesses are also believed to be partly caused by the aforementioned natural agents.

Secondly, supernatural agents also cause illnesses. This category may be sub-divided into good supernatural agents and evil supernatural agents. God, ancestors and deities are considered as good supernatural agents. These agents, it is widely believed, may inflict people with illness when they have contravened important rituals and taboos such as eating totemic animals or having had sex in the bush. Such deviants and their kith and kin may experience mysterious death or total crop failure. To avert or stop such a misfortune, sacrifices, offerings and prayers are prescribed to be performed by the afflicted persons. Witches, sorcerers and demons represent the evil supernatural agents. Fosu (1981) in his study observed that any of these agents may inflict illnesses such as leprosy, sterility or mental illness on people out of jealousy, envy, rivalry or greed.

Thirdly, illnesses may be caused by a combination of natural and supernatural agents. As he has noted, illnesses such as gonorrhoea and dizziness may be caused by both natural and supernatural agents. To elaborate on causes of illnesses in this last category, a respondent in Fosu's study explained that a "woman who has witchcraft may bite the sex organ of a man she sleeps with and gives him Babaso (gonorrhoea). Someone may also contract Babaso (gonorrhoea) by sleeping with a prostitute" (Fosu, 1981:474)

Traditional medical training

This section discusses the processes, procedures and instructions one receives before s/he becomes a traditional medical practitioner. Studies by Bonsi (1973) and Twumasi (1975) have shown that there exist no fixed mechanisms

through which someone can become a traditional medical practitioner, rather there are several ways of entering into traditional medical practice. Bonsi (1973), in his study of traditional medical practice in modern Ghana, identified various modes of entry into traditional medical practice.

Firstly, spirit possession is identified as one of the several modes of entry into traditional medical practice. It is a process whereby a traditional priest, priestess or a practitioner is 'hand picked' or called by a deity to be his or her servant (Bonsi, 1973). The novice who enters the training through spirit possession may have been going about his ordinary daily duties, but more often may have been attending a religious ceremony, when suddenly and without any previous warning s/he becomes possessed. When possession occurs, a qualified practitioner is called upon to interpret the episode. Thereafter, the final decision to permit a person to enter into training is left to his relatives. According to Bonsi (1973), possessed persons' wives or daughters and sometimes Christian relatives become so traumatized to the extent that they end up in mental institutions or die prematurely.

In training, as Bonsi (1973) has pointed out, the novice observes many taboos. For instance, s/he does not use a comb, dress his or her hair, or shave any part of the body. The training lasts for a period of three years. Lessons learnt at the training school include dancing, singing and divination. The novice is also taught the names, spiritual and therapeutic properties of medicinal trees, plants, twigs and ferns.

Secondly, association with dwarfs is considered as one of the modes of entry into traditional medical practice. Bonsi (1973), in his survey, came across practitioners who claimed dwarfs took them into the forest and taught them the names, spiritual and therapeutic properties of medicinal plants. The dwarfs also endowed them with divinatory skills which enabled them to diagnose illnesses. After their training in the forest, which usually lasts for days or weeks, the novices are brought back, wearing strange attire made of leather with talisman studded in them.

Thirdly, Bonsi's (1973) study found practitioners who claimed that they acquired their knowledge of herbs and causes of illnesses from dreams and revelations, especially when walking in the forest. These practitioners claimed they were spoken to by unseen supernatural forces who indicated to them how the combination of certain herbs could cure certain illnesses. Bonsi's (1973) study further revealed that some of the TMPs claimed that in their dreams or revelations they could identify the colour, size and shape of a plant and then link it to the illness to be cured. For example, seeds shaped like fingers could suggest a cure for festered thumb and a nut which looks like the heart could also manage cardiac illnesses.

Fourthly, some of the practitioners that Bonsi (1973) studied said that they acquired their medical knowledge from relatives, friends and well-known practitioners in the country and others from neighbouring countries such as Togo and Benin. According to Bonsi (1973), Ghanaians hold in high esteem practitioners who acquired their knowledge in traditional medical practice from

countries such as Togo and Benin. It is equated with graduating in scientific medicine from universities such as Harvard or Edinburgh in America and United Kingdom, respectively. Foreign trained TMPs therefore enjoy higher recognition in the communities where they practise.

Fifthly, Bonsi (1973) has pointed out in his study that some TMPs inherited their medical knowledge and skills (especially herbalism) from parents or relatives. In Ghana, according to Bonsi (1973) herbalism has been inherited for many years. Some of the practitioners he interviewed claimed that they used to accompany the predecessor into the forest to collect herbs or, as errand boys, they stood by as the predecessor prescribed herbs or performed ceremonies for some cures. The trainee would continue to serve as an assistant until the predecessor was on his death bed, when she or he would hand over all knowledge and materials concerning herbalism to the trainee. In many respects, every practitioner attempts to modify the practice inherited from the predecessor.

Bonsi (1973) observed the emergence of a new breed of herbalists in the country. These new TMPs are mostly trained at herbal institutes in Ghana; others are university graduates who hold degrees in Pharmacy, Biological Science and, in recent times, Herbal Medicine. A prototype of these institutes was Dr. Nartey's Institute of Herbal Medicine (IHM) at Nsawam and Noamesi Laboratory for Medicine Plants Research and Development (NLMRD) at Hohoe in the Volta Region Ghana. IHM, for example, offers a five-year training programme which exposes the students to scientific diagnostic and therapeutic procedures. Students are also taught to treat clients as whole persons and not illness entities. They are

taught to counsel their patients to be wary of what they eat, drink and wear. In addition, they are exposed to how to manufacture and preserve herbal medicines.

Common illnesses treated with Traditional Medicine

Senah (1997), in a study, investigated the use of medicines at Bortianor, a rural community in the Greater Accra Region of Ghana. The study revealed that common ailments which are treated with traditional medicine include measles, malaria, dysentery, waist / body pains and eye problems.

Children afflicted with measles are usually treated by rubbing or orally spraying their bodies, especially the affected parts, with a locally manufactured gin called *akpeteshie* with the intention of burning the rashes. In addition to that, such children are given herbal medicines as an enema with the intention of getting them completely healed.

Malaria is treated with a herbal concoction of neem tree leaves. The concoction is usually administered as an enema. The people are of the view that an enema of neem tree leaves is capable of getting rid of heat and waste in the patient's bowels.

Dysentery is usually treated by administering a concoction of herbal medicine and prescribing that a notched coin is worn around the child's neck and a wrist – band which is believed to ward – off bad spirits.

Waist and body pains are mainly considered as adult ailments .They believe to caused by hard labour, piles and consumption of starchy food. These ailments are treated with the use of herbal concoctions.

Another study that also investigated common illnesses treated by TMPs, especially faith healers, was the one conducted by Sackey (1999). She investigated the healing activities of The Twelve Apostles Church focusing on reproductive and antenatal practices. The study revealed that female reproductive problems the Church handles include barrenness/infertility, inability to menstruate, difficulty with labour, miscarriage, coma after hospital delivery, successive infant mortality, avoidance of a second Caesarean operation, ectopic pregnancies, fibroids and inability of foetus to develop. Intervention employed by the Church's Prophetesses for treatment of these and similar problems are fasting, saying of specific prayers, Bible reading, bathing and drinking of holy water, giving of enema and Florida water (Sackey, 1999).

Peltzer (1999) also reported the healing practices of two African Independent Churches (AIC), namely the Zionist and Apostolic Churches, situated in the Northern Province of the Republic of South Africa. He investigated the two AICs' contribution towards the treatment of mental and psychiatric disorders. The most common illnesses/problems treated by these Churches are witchcraft/sorcery related disorders, alcohol and substance abuse including the smoking of cigarettes and cannabis, chronic illnesses such as diabetes, mental disorders (madness and sleep disorder), physical disorders like sexually transmitted illnesses (STIs) and childhood illnesses. Methods employed by the faith healers in effecting treatment of the aforementioned mental and social disorders, inter alia, include prayer, baptism, use of holy water, physical restraint,

hydrotherapy, purification measures (emetics), use of candles, worship, laying on of hands, prohibition of drugs, singing and confession (Peltzer,1999).

Types of traditional medical practitioners

A closer examination of the literature indicates that different classificatory schemes have been adopted by various scholars to describe the various specialists in the formal traditional medical sector. Evans-Anfom in his book, 'Traditional Medicine in Ghana', which basically examined the nature of TM, problems the practice encounters and the possibility of incorporating it into the formal health structure, identified five forms of TMPs. These included herbalists, fetish priests, traditional midwife, bonesetters and circumcisers/scarificationists (Evans-Anfom, 1986). Similarly, Twumasi, in his book, 'Social Foundations of the Interplay between Traditional and Modern Medical Systems' (Twumasi, 1988), classified TMPs into four main groups. These are traditional birth attendants, faith healers, spiritualists (diviners or fetish priests) and traditional herbalists. Senah, Akor and Mensah (2001) in their 'Baseline Study into Traditional Medicine Practice in Ghana' categorized TMPs into five main groups which comprise herbalists, traditional birth attendants, herbalists/spiritualists, soothsayers/diviners and shrine devotees. From the foregoing, it is clear that scholars have not been able to establish a universally accepted classification of TMPs. Each scholar therefore develops his or her own classificatory scheme which may be suitable for the study s/he is undertaking. For the purpose of this study the researcher would discuss five categories of TMPs,

namely herbalists, traditional birth attendants, diviners/soothsayers, spiritualists and faith healers. This is because they seem to feature prominently in the works of scholars who have written about TM.

Herbalists

Herbalists are considered to be the most innumerable TMPs in Ghana (Senah, Akor and Mensah, 2001; Twumasi, 1988). In their Baseline Survey of the Practice of TM in Ghana, Senah et al. (2001) reported that herbalists constituted the majority of TMPs in Ghana. The findings of their study revealed that of the 221 TMPs surveyed across the country, 82 of them, constituting 37%, were herbalists. They included men and women who use herbs and other natural products such as animal parts and minerals to treat their clients. In other words, their therapeutic practices are without ‘magico-religious rituals’ (Senah, Akor and Mensah, 2001). Twumasi (1988) and Senah (1997) in their studies identified several sub-fields within herbalism. The sub-specialists operating within herbalism included abscess lancers, bonesetters, and circumcisers (wanzam), itinerant herbal medicine peddlers and operators of herbal institutes.

Bonesetting is considered a subfield within herbalism. The practitioners, as Brokensha (1966) reported, are very famous in Larteh, which is in the Eastern Region of Ghana. Bonesetters “move bones as a form of medical treatment” (Hinojosa, 2000). The movement of bones may be limited to dislocation reduction, or may also include fracture reduction. Persons who move bones also perform massage, even though not all persons who practise massaging of the body

move bones therapeutically. Bonesetters view their work as either empirical or sacred in character (Hinojosa, 2000). The empirically-oriented practitioners rely on their intuition and the abilities of the hands to manipulate the ailing part of the body. It is completely devoid of any ritual. Other practitioners introduce other supernatural elements such as receiving divine instructions in their dreams and offering prayers before medicaments are applied. As Brokensha (1966) pointed out, bonesetters combine their therapeutic treatment with magical practices such as breaking a chicken's leg and informing the client that his limb will be better when the chicken can walk properly.

Abscess lancers may be described as traditional surgeons. This is because they usually treat their clients by cutting open swollen parts of the body and removing impurities (pus) and subsequently applying herbal remedies. Abscess lancers, more often than not, treat clients suffering from boils since SMPs are considered incompetent at treating boils, especially bad boils or carbuncle (Fosu, 1981:474). Circumcisers, also known as *Wanzams*, are usually men, who basically remove the foreskins of boys' or men's penis and subsequently apply herbal medicines. With regards to girls or women, the circumcisers remove the clitoris and apply herbs as well.

Twumasi (1988), Bonsi (2000) and Essegbey (n. d.) have identified another category of herbalists they call 'new herbalists'. These categories of herbalists are well-educated men and women who own herbal clinics and institutes. Some of these new breed of herbalists are holders of university degrees in Pharmacy and Herbal Medicine. One of them is Mr. Akakpo, the Acting

Registrar of the Traditional Medical Practice Council (TMPC) and owner of a clinic at Bawjiase in the Central Region. Some of the institutes and clinics these new healers operate include the Institute of Herbal Medicine at Nsawam, Noamesi Laboratory for Medical Plants Research and Development at Hohoe in the Volta Region, and Apaak Traditional Medicine Company which has branches in Accra, Koforidua and Tema. We shall closely examine the activities of the last two centres mentioned above.

The Noamesi Laboratory for Medical Plants Research and Development (NLMPR) was established as a “center for scientific research into plant medicine which focuses on development of medicinal plants and pharmacopeia” (Bonsi, 2000:206). This institution has two major divisions - a Research Centre and a Herbal Clinic. The institute’s main objectives, inter alia, are to conduct research into plants alleged by TMPs to possess medicinal properties and to encourage and motivate doctors in the formal health sector to prescribe its products and also monitor their performance.

The activities of this institute have yielded dividends in that products such as snake venom killer (VEMKILL), Rejuvin, Healer Herb and Naval contraceptive have been confirmed to be efficacious by the Hohoe General Hospital and Adidome Hospital (Bonsi, op. cit.).

Similarly, Apaak Traditional Medicine Company (ATMC) established in 1980, was set up to conduct studies into medicinal plants by indicating their botanical names and isolating their active constituents. ATMC manages a Herbal Clinic and a herbal medicine production unit. The herbal clinic is decentralised

and has branches located in Accra, Koforidua and Tema. The production unit of ATMC has drugs formulated as liquid, powder or chopped bits of plants. These products are administered to clients who visit the herbal clinics, and are also sold in some chemical shops in the country.

Spiritualists

Spiritualists are another category of TMPs who serve mainly as priests and priestesses of deities (Twumasi, 1988). Thus, they are in charge of shrines or places of worship of the particular deities they serve. Twumasi (1988) has observed that spiritualists maintain or act as a link between their deities and clients who seek their assistance. They assert that the sources of their healing powers are from the deities they serve.

Senah (1997), in an article on the health care practices of the Southern Ewes in the Volta Region of Ghana, identified two types of deities served by spiritualists. These are personal deities owned by individuals and titular deities which are possessed by an entire community. According to him, the personal deities, also called *vodu*, are usually obtained by individuals who have gone through traumatic and life threatening experiences. They are, therefore, procured to lift the individual out of difficulties or prevent the recurrence of such problems. Nevertheless, some owners use them to cause harm to their opponents or enemies. Personal deities appear in the form of effigies, charms, amulets and talismans worn by their owners. As Senah has pointed out, personal deities are seen

hanging on door posts or “found in corners or under beds” in rooms (Senah 1997:245).

As noted earlier, titular deities are owned by entire villages or towns. Members of the community consult them and ask them to protect them. This, the deities do. However, whenever they are displeased with the conduct of community members, they are capable of punishing them with “sudden visitation of deaths, illnesses, plagues, famine” (Senah, 1997:245).

Titular deities have permanent abodes or shrines constructed for them (Senah, 1997). Well-known shrines in the southern part of the Volta Region are the Nogokpo and Togbi Adzima in the Ketu District, and Hogbato and Emi located in the Keta District (Senah, 1997). In his study of Larteh, Akuapem, Brokensha (1966) reported the existence of shrines of gods such as Bofo, Otutu, Tshao and Akonedi. Of all the shrines at Larteh, Akonedi is the most prominent and most popular. According to Brokensha, Akonedi is considered as a State or Community god, since it serves clients from the entire Larteh township, other Akuapem towns and the entire country. Several officials such as priestesses, priests, herbalists, linguists, drummers and stewards serve at the shrine. The head of the shrine is a woman designated as the Chief Priestess. She is assisted by a male priest known as an Osofo who acts as the secretary of the shrine. The main consultation days at the shrine are Tuesdays and Fridays.

Diviners

Diviners are a category of TMPs basically interested in the art of divination. The art involves the practice of uncovering the unknown by various natural, psychological and other techniques such as common sense. According to the New Encyclopaedia Britannica (NEB) (2003), the techniques, which practitioners use to explain and interpret the mysteries of life and convey the messages of God, divinities, ancestors and other spirits is a universal phenomenon found in all societies both ancient and modern, including Ghana.

The NEB (2003) identified various forms of divinatory practices existing in most societies in the world today. These comprised necromancy, which is concerned with communicating with the spirit of the dead, and palmistry, which involves the prediction of events by reading the lines and marks of the hand.

Geomancy, also a type of divination, is the most widely and highly developed divinatory practice in West Africa. Its leading exponents are the Yoruba and the Ewe (Nukunya, 1969). The practitioners of divination in Ewe land, especially among the Anlo, are known as *bokowo*, who worship the deity Afa (Nukunya, 1969). The *boko* generally plays the role of an intermediary between individuals and the Afa deity. Intermediary roles include “casting onto a mat or a chain containing a pair of four half-split palm kernel, nuts or similar objects, some falling face up, others face down. For each of the 256 possible positions, there are a number of verses or pithy sayings which are interpreted to determine the causes of sickness, bad luck, a run of misfortunes or the deity affected or the one to be served and so on” (Nukunya, 1969). In other words, the

boko, with the aid of *Afa*, is able to identify the cause of death of a client's relative. In addition, Nukunya (1969) has observed that the diviner may be called upon to foretell what portends in the future for an individual or a group and also suggest an appropriate treatment in order to forestall the occurrence of the mishap. Moreover, he may be asked to explain calamities which have already befallen members of a community. Disasters such as famine, death, injury or sickness could easily be explained by the *boko* with the aid of *Afa*. Some *Afa* practitioners also counsel individuals and groups about the probable actions which would help them to prosper or enjoy good health.

The recruitment and training of diviners was one of the issues which Oppong discussed in her study of the people of Dagbon. She observed that diviners or Bagsi, as they are called, are visible personalities who are easily identified by their "leather bags, divining stick, blood encrusted horns and a calabash containing beads, buttons and nails" (Oppong, 1973:98). Oppong (1973) noted that entry into this profession takes various forms. Some diviners inherit the profession from their relations, either paternal or maternal. New recruits are trained by other experienced diviners. This takes the form of apprenticeship training where the novice studies at the feet of a seasoned diviner. The training involves learning the names and signs of divination, figures, the proverbs and stories connected with them.

Faith Healers

Faith healers constitute another class of TMPS. They are usually leaders or members of African independent religious movements which are made up of pentecostal, charismatic or spiritual churches (Senah, 2004). However, leaders of some mainline churches such as the Presbyterian Church of Ghana (PCG) and Methodist Church are now also deeply involved in faith healing. The November 2006 issue of the *Christian Messenger*, a paper published by the PCG, reported that deliverance and healing services that the PCG at Akropong-Akuapem organizes on Wednesdays and Saturdays attract over 1,500 people every week. These supplicants included Presbyterians and non-Presbyterians who come from all over the country and beyond. Similar activities also happen at the Presbyterian Prayer Centre (PPC) at Atibie-Kwahu in the Eastern Region of Ghana. Under the leadership of Reverend Nana Ntim Gyakari, the PPC offers counseling, deliverance and healing services to its numerous supplicants who come from all parts of the country and are adherents of various christian denominations.

Faith healing methods

The popularity of faith healing, as Senah (1997), has noted, stems from the belief of the Ghanaian that religion is a means of interacting with the cosmos in order to cure illness and also promote the socio-economic wellbeing of members of a society.

As Senah (2004) further pointed out, faith healers in Ghana employ various methods in effecting cure of ailments and improving the wellbeing of

their clients. Faith healing is performed mainly through prayer and laying of hands on the clients. In some cases it is also effected through the use of sacred objects such as candles, holy water, incense and oil. The consumption of blessed food has resulted in the healing of supplicants (Sackey, 2002). Sackey (2002) reported that at the Spiritual Revival and Healing Centre at Edumfa in the Central Region, barren women are believed to have given birth after having consumed blessed toffees provided by Auntie Grace, the leader of the centre. Similarly, a woman who ate Konkonte (food prepared with processed dried cassava flour dough) and groundnut soup offered by Reverend Christie Doh-Tetteh of the Solid Rock Chapel International Church, conceived and gave birth to a baby girl (Sackey, 2002). The playing of music accompanied by joyful noise-making and dancing is also believed to be effective in curing illnesses, especially mental, emotional and spiritual ailments.

In recent times a new form of faith healing has emerged. This kind of faith healing has been described by Sackey as 'teletherapy,' meaning "healing by remote control" (Senah, 2004). This refers to a healing situation where the faith healer and the clients are far from each other. In other words, they interact through telephones, radio, letters and, sometimes through the internet.

Problems presented at faith healing sessions range from health needs to prosperity requests. Opoku's (1970) analysis of letters written by adherents of a spiritual church to its leader indicated that cases presented to faith healers cover a wide spectrum of health and psycho-social needs. In this study, he did a content analysis of 24 letters written by individuals whose prayer requests have been

answered. The letters were written to Brother Lawson, founder and leader of the Divine Healer’s Church. Of the 24 letters, 19 were written by males, three (3) by females and two by couples. The letters came from people resident in and outside Ghana. 12 of the letters representing 50% dealt with healing, the rest dealt with childbirth (4), court cases (4,) success in examinations (2), lost property (1) and reinstatement in work (1). In Sackey’s study of the Spiritual Revival and Healing Centre at Edumfa in the Central Region mentioned above, the main problem that clients present is their inability to bear children. This is followed by difficulties in acquiring visas, witchcraft afflictions, menstrual problems and dumbness in that order (Senah, 2004). The table below shows the problems presented at Edumfa between 1979 and 1984).

Table 3: Table showing Objectives for entering Edumfa Spiritual Revival and Healing Centre (1979-1984)

Problems	1979	1980	1981	1982	1983	1984	Total
Sexual							
weakness	71	9	12	14	-	12	168
Menstrual							
problems	681	89	19	73	3	95	960
Visa							
Acquisition	52	87	317	233	1,112	994	2,795
Child bearing	179	272	2,118	79	1 72	95	2,915

Table 3 cont'd.

Deafness	14	9	3	8	-	12	46
Dumbness	3	13	2	-	-	3	121
Leprosy	18	7	7	9	17	3	61
Stroke	7	21	2	7	3	2	52
Witchcraft	113	12	81	87	94	107	1,194

Source: Sackey (2002) reproduced in Senah (2004).

A study by Senah (2004) showed that cases presented at faith healing sessions have not changed significantly. In this study, Senah undertook an imprecise statistical analysis of health cases presented at most early morning radio healing encounters and it came out that most of the prayer requests were connected with chronic, weird and non-incapacitating health problems.

Traditional Birth Attendants

Traditional birth attendants (TBAs), also known as traditional midwives, (Twumasi, 1988) are found to be TMPs who assist pregnant women during childbirth. Traditionally, their main pre-occupation is to help deliver pregnant women of their babies and also offer post-natal services. But recently their services stretch into areas such as family planning, counseling, HIV/AIDS education and advice on immunization of mothers during pregnancy.

TBAs, according to Twumasi (1988), are usually middle-aged or elderly women. Young women are reluctant to enrol to be trained as TBAs because of the belief “that if a woman of child-bearing age begins to assist other women to

deliver children as a vocation or as a TBA, she will never have children of her own and worst of all, she will go blind” (Azumah, 2006:20). TBAs are mostly illiterates or people who have received little education. They usually operate on a part-time basis. It is estimated that about 80% of deliveries which take place in the country are performed by TBAs (Twumasi, 1988). In a study conducted by Imogie, Agwubike and Aluko (2002) to assess the role of TBAs in the modern health care delivery system in Edo State of Nigeria, it was revealed that the popularity and, by extension, the high patronage of the services of TBAs by childbearing mothers was due, inter alia, mainly to “... availability, accessibility, cheap services and rural dwellers’ faith in the efficacy of their services”. (Imogie, Agwubike & Aluko, 2002, p.94).

Entry into the practice is mainly through inheritance, even though some TBAs claim they were supernaturally endowed with the knowledge and skill of delivering pregnant women. Those who inherit the vocation, acquire it through apprenticeship training. In other words, they master the art and knowledge of performing deliveries at the feet of seasoned TBAs, who are relatives, principally through observation. The period of apprenticeship may last as long as five years (Twumasi, 1988). During this period the trainee also learns the preparation and administration of herbs which are essential in child deliveries.

Theoretical Perspective

This section of this chapter presents theories employed in the analysis of data in the study. The study was treated as a case of attitudes and perceptions

of SMPs towards TM. Writing about attitudes, Eagly and Chaiken have argued that it is “a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor” (Eagly & Chaiken, 1993, p.1). They explained that it is a psychological tendency because it is internal to the person and last for a short time. Furthermore, they explained that its evaluating orientation can take positive or negative form against an entity.

According to Triandis (1971), individuals, including SMPs, learn attitudes. SMPs, just like other individuals in the society, form attitudes through information, conditioning and modelling. SMPs are exposed to information about TM and TMPs from family members, neighbours and friends. They are taught that ill-health and illnesses are caused by specific factors such as germs and nutrient deficiency. They are also taught that a specific medicine is used to treat a particular illness. Secondly, they demonstrate positive or negative attitude towards TM because doing so has previously been rewarded. The late Dr. Oku Ampofo was reported to have used herbal medicines to treat his clients because of inadequate supply of scientific medicines in the Gold Coast in the 1940s (Essegbey, 2002). However, Twumasi (1979) has argued that some SMPs would not like to have anything to do with TM because if TM “is accepted as an open practice, the prestige and economic position of the medical doctors will be threatened” (Twumasi, 1979, p.33). Finally, young SMPs adopt the attitude of their senior colleagues towards TM. Using their senior colleagues as role models, if they act positively or negatively towards TM, the young SMPs naturally assume that it is the correct stance to take or the right way to behave.

Attitudes and Perceptions of Scientific Medical Practitioners

Freimuth, Quinn, Thomas, Cole, Zook and Duncan (2001) who investigated the low participation of African Americans in clinical and public health research in the USA. In order to understand attitudes towards medical research among African Americans, the investigators employed the focus group discussion (FGD) as the main instrument of data collection. The subjects were made up of 60 people comprising 20 men and 40 women. The study found that African Americans' negative attitude to medical research was due to distrust of medical researchers, especially those who were white. Additionally, the study found that the subjects' knowledge about research was limited; hence their unwillingness to participate in medical research. Furthermore, the study found that lack of information or misinformation may be a critical factor in attitude formation, especially negative attitude formation.

Ben-Arye, Frenkel, Klein and Scharf (2008) using a quantitative methodology explored the attitudes of Primary Care Physicians towards integration of complementary and alternative medicine(CAM) in primary care clinic in Israel. The study found that Primary Care Physicians favoured the integration of CAM in primary care clinics in Israel.

Gender dimensions of medical students attitudes towards introduction of CAM into the curriculum medical schools in Britain was examined by Greenfield, Brown, Dawlatly, Reynolds, Roberts and Dawlatly (2006).Using a survey methodology the study found that female medical students favoured introduction of CAM into medical schools curriculum than males in Britain.

In a related study, Uzun and Tan (2004) explored the opinions and knowledge of nursing students in Turkey. Even though the study found that nursing students' knowledge and understanding about CAM is limited, they expressed positive opinion it.

Shorofi and Arbon (2010) using a descriptive survey determined the attitudes, knowledge and professional use of CAM by nurses in metropolitan hospitals in Adelaide, Australia. The study found that majority of the respondents were positive about CAM and almost 50% were using CAM for patients, with mind-body interventions being the most common form of CAM domain used in practice.

Employing a cross sectional survey methodology Chu and Wallis (2007) ascertained the attitudes of Taiwanese nurses towards CAM. They found that most nurses had positive attitudes to CAM and also most used therapies such as massage, occasionally in practice.

Similarly, Samuels, Zisk-Rony, singer, Dulitzky, Mankuta, Shuval and Oberbaum (2010) evaluated the attitudes of Israeli nurse-midwives towards CAM. Adopting a cross-sectional survey methodology, the study found that majority of the respondents use and recommends CAM to their patients and believes that it can complement conventional medical therapies.

Another study which also examined barriers to participation of African Americans in medical research was undertaken in 1994 by Corbie-Smith, Thomas- Williams and Moody-Ayers. The main instrument used in collecting data for the study was FGD. The FGD was held at the Out-Patient Department of

an urban hospital at Atlanta. The subjects for the study were 33 people. Of the 33 people, 70% were women and 30% men. The main findings of the study were that African Americans' attitude towards medical research was negative. They were, therefore, unwilling to participate in clinical trials because of mistrust of doctors (especially white doctors), scientists and the government.

Writing about person perception Maheady and Maitland say, it refers to: "The ability to immediately identify, recognizes, and interprets the meaning and significance of the behaviour of others..." (Maheady & Maitland, 1982:363). In other words, it is the process by which humans are able to interpret social messages from fellow human beings. In 1961, Garbin and Bates reported a study which investigated how 107 freshmen pursuing Social Science programmes at Louisiana State University in the United State of America (USA) perceived a selected group of 30 occupations based mainly on their subjective evaluations. The study found that the subjects positively evaluated and therefore highly admired occupations which they deemed as interesting and challenging, intelligence required, only few people can do them require high level training and are highly rewarding. The findings of this study are congruent with how some scholars perceive scientific medicine and TMPs. Owusu, a former Dean of the University of Ghana Medical School (UGMS), in his inaugural lecture delivered at the University of Ghana recounted the rigorous nature of the training which students undergo at Medical Schools, which eventually lead to the production of high quality personnel (Owusu, 1996). Owusu concluded that SMPs belong to the most exclusive and prestigious society in world.

Rhode, Patel, Sen, Schimp, Johnson and Liu (2008) explored the general perception of gynecologic Oncologists in Michigan, USA. The study found that the respondents favourably perceived CAM and also recommended its integration in primary clinics.

Another study which empirically investigated the question of person perception was the one undertaken by Crittenden and Norr (1973). This study examined how subjects' values influenced their judgment of other persons. Questionnaire was the main instrument used in extracting information from the respondents. The respondents were made up of 1718 students in 52 classes in an urban university in USA. They were asked to rate the characteristics and behaviour of their instructors and instruction on a 10-point scale from 0 (low) to 9 (high). The findings of the study revealed that the respondents' assessment of their instructors was based on how important they viewed aspects of their instructors' behaviour and characteristics. The findings of this study fall in line with the position of the former Director-General of Ghana Health Service (GHS), Professor Agyeman Badu Akosa, on the integration of TM into the national healthcare system. In a News Report entitled 'Prof. Akosa's view challenged', filed by Sylvanus Nana Kumi and Charlotte Kafui Boh and published in the 'Ghanaian Times' on November 6, 2004, Professor Akosa was reported to have reacted negatively to the proposed integration of traditional medicine into the national healthcare system. At a symposium on herbal medicine organized by the Pharmaceutical Society of Ghana (PSG) he said that although he believed in herbal medicine he did not think it could be practised side-by-side with orthodox

medicine. He explained that integration of TM into the national healthcare system could be possible if TMPs upgrade their knowledge and also submit their medicines to CSRPM, FDB and NMIMR for testing and approval. On the other hand, Acheampong (1989) in his Inaugural lecture delivered at the University of Ghana favourably evaluated herbal medicine while negatively viewing the activities of the practitioners.

Conceptual Framework

A conceptual framework built to give a sound analytical framework of the study is explored. The first part of the model mentions stimuli which include family or childhood socialization, medical school socialization, personal experiences and legal and ethical codes. These stimuli influence the development of SMPs attitudes towards TM. The second part of the model depicts attitudes formed which may be positive, negative, both positive and negative. Finally, the attitudes formed then show how SMPs perceive TM. It should be noted that how SMPs perceive TM influence also shape their attitudes towards TM.

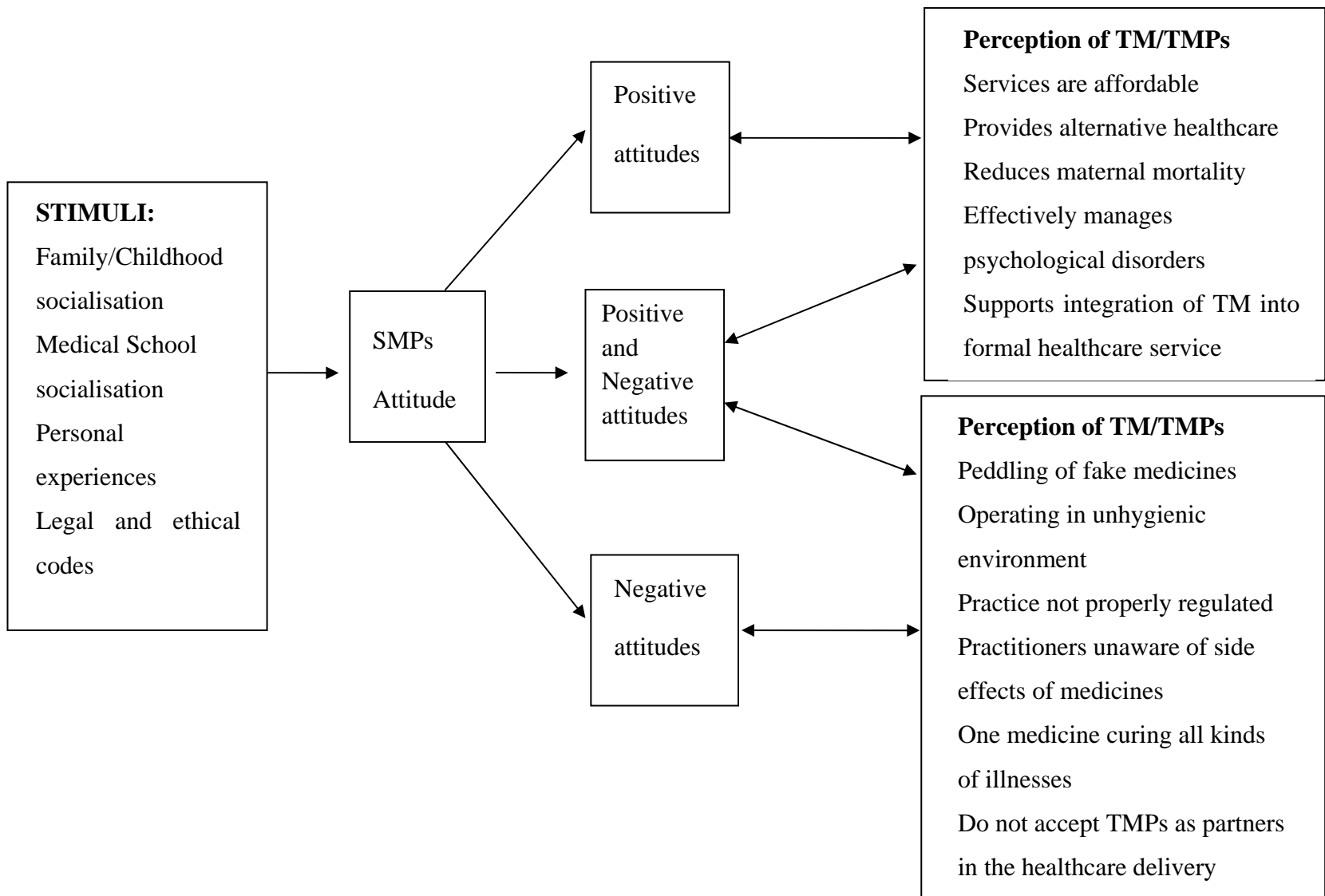


Fig. 1: Model of Attitudes and Perceptions of SMPs towards TM.

From this theoretical perspective and framework, it is clear that the decisions that SMPs make about TM are influenced by the attitudes they have towards TM and the way they perceive it. Therefore, the attitude SMPs have towards TM influences how they perceive it. Conversely, how SMPs perceive TM also shapes their attitudes toward it. The methodology and procedures used to gather data for study are presented in the next chapter.

CHAPTER THREE

RESEARCH METHODOLOGY

Introduction

This chapter presents the methodological approach for this study. Specifically, it discusses the study design, target population, data collection methods and research instruments, which the researcher used to collect the data.

Study Area

The study was conducted in the Central Region of Ghana which is one of the ten administrative regions. It is bordered by the Ashanti and Eastern Regions to the north, Western Region to the west, Greater Accra to the east, and to the south by the Atlantic Ocean. The Central Region with Cape Coast as its capital city presently occupies an area of 9826 km². According to the Ghana Statistical Service (2002) the population of the Central Region stands at 1,593,823.

According to Buah (1998) ethnic groups found in the region are mainly of Akan extraction that makes up some 44% of the population of Ghana. These ethnic groups include the Denkyira, Twifo, Heman, Agona and Asen, who inhabit the forest areas. The Fante, Gomoa, and Efutu are mainly located along the coast.

The major economic activities in the region include fishing and fish processing, trading, farming, mining and teaching. The Central Region is noted for tourism and tourism-related projects. Major tourists sites include historical

monuments such as the Cape Coast and Elmina castles, the slave market site at Assin Manso, the Kakum National Park at Abrafo-Odumase, cultural festivals of the chiefs and people in the various traditional areas such as Cape Coast, Elmina, Efutu, and Denkyira. The biennial Pan African Historical Theatre Festival (PANAFEST), aimed at reuniting Africans on the continent and those in the Diaspora, also attracts a lot of tourists to the region.

Thirteen district hospitals are located in the study sites. Of these ten of them are owned by the state. These hospitals are located at Cape Coast, Abura Dunkwa, Saltpond, Ajumako, Winneba, Twifo Praso, Dunkwa-on-Offin, Agona Swedru and Ankaful. The rest of the district hospitals located at Asin Fosu, Bremang Asikuma, and Apam are owned by the Catholic Church. One of the two Psychiatric hospitals in Ghana is located in the region at Ankaful. Thirty-three SMPs were found practicing in these district hospitals.

The study design

The study was designed to examine SMPs' attitudes and perceptions towards the integration of traditional medicine into Ghana's formal healthcare delivery system. Given that there is very limited information in Ghana about the integration of TM into the existing scientific medical system, the author's study is exploratory in nature, and lends itself to the use of descriptive survey designs. The merit of this design was that it enabled a systematic collection of data using questionnaires designed for the purpose as well as analysis and presentation of the data.

Target population

The target population of this study was all SMPs practising medicine in the District Hospitals in Central Region of Ghana.

Sample and sampling procedure

The researcher considered the number of respondents who would be adequate for drawing conclusions, given the qualitative but simplistic nature of the questionnaire design. He employed the purposive sampling technique to select all the 33 SMPs practising in the 12 District Hospitals in the Central Region for the study. The rationale for selecting all SMPs working in the district hospitals was two-fold. First, the MoH (2005) indicates in its strategic plan for Traditional and Alternative Medicine Development in Ghana, that it would sponsor a Legislative Instrument (L.I.) that would introduce traditional and alternative medicine in the district hospitals. Second, just as the National Health Insurance Scheme (NHIS) was introduced in the country using district hospitals, an attempt to integrate TM into the national healthcare delivery system is most likely to be started at the District Hospitals. Of the 33 SMPs sampled, 21 of them work for District Hospitals managed by the Ghana Health Service (GHS), while the remaining 12 SMPs practise in District Hospitals run by the local Roman Catholic Church.

Research instrument

The main instrument that the researcher used in gathering data for the study was the questionnaire (Appendix). He used this data gathering instrument

for the study for two reasons. First, it allows for the standardization of data. Second, the subjects of the study i.e. scientific medical practitioners are a fairly homogeneous and highly literate group who easily filled out the questionnaire.

Even though most of the questions were close-ended, a number of open-ended items were also included in an effort to elicit qualitative data. This approach was meant to encourage the respondents to share personal experiences with regard to traditional medical practice and its possible integration into the formal healthcare delivery system.

The 36-item questionnaire was divided into four sections. Section A had 10 items and sought basic demographic information: sex, age, marital status, religious affiliations, educational background and areas of specialization.

Section B had 9 items and dealt with the respondents' views on the efficacy of traditional medicine and the quality of services rendered by TMPs. It also covered issues such as the training needs of TMPs and ailments they think TMPs should manage and treat.

Section C touched on the respondents' perception of and attitudes towards collaboration between SMPs and TMPs.

The last section, D, explored issues such as the role of TM in the national healthcare delivery system and also the strengths and weaknesses of TM.

Data collection

Pre-test

The researcher undertook a pilot study to ensure acquisition of adequate knowledge about the respondents and the healthcare facilities in which they

worked. The essence of the study was to test some assumptions underlying the study and also to pretest the items on the questionnaire in order to ensure their relevance to the study and avoid possible ambiguity. Using the accidental technique, the researcher visited the U.C.C Hospital and administered the questionnaires. Two out of the six SMPs working in the Hospital declined to participate in the study citing lack of time as the main reason. It became obvious during the pilot study that few items needed to be added to the questionnaire and provide new response options. The preliminary study also brought to light some of the problems that were to be encountered during the main survey, namely the refusal of some of the SMPs to complete the questionnaires on the grounds that they were either busy doing their work, and therefore did not have time to serve as respondents or did not know much about the subject. Even those who expressed their willingness to participate in the study did not keep to their promise of completing their questionnaires by the appointed time.

Main survey

The fieldwork started in June and ended in August, 2007. The researcher recruited two field assistants who were given 1-day training with regard to their schedule of work. This included studying and understanding the questionnaires, editing them for accuracy and completeness, administering and retrieving them. Due to the unreliable nature of postal services in Ghana, the researcher and his assistants decided not to mail the questionnaires to the respondents, but rather to personally visit the hospitals between 1.00 p.m. and 5.00p.m when the respondents would be less busy, administer the questionnaires and retrieve them

after the respondents had completed them at their own convenience. One strategy that the researcher used to ensure that the non-response rate was minimal was to make several phone calls and undertake visits to each of the sampled hospitals in an effort to get back the completed questionnaires. In view of this strategy, by the end of the fieldwork, the researcher had collected 25 completed questionnaires from the respondents in the various hospitals. The figure represents 86.2% of the sample size.

Problems encountered in the field

The researcher encountered two major problems in the course of data collection, namely lack of co-operation on the part of respondents and the high cost of data collection. Some of the SMPs appeared unwilling to participate in the study. The researcher had to spend a lot of time and effort to persuade them to participate in the study. In spite of that some of them did not participate in the study. They stated that they could not participate in the study because they were either busy attending to patients, did not know much about TM or were just not interested in surveys.

Retrieving the questionnaires was very frustrating, time consuming and costly. It took a great deal of effort to retrieve the questionnaires from the respondents. The researcher had to undertake several visits to the study sites and call the respondents on phone in order to get them to fill out the questionnaires.

Data Analysis

Data entry and analysis involving mainly tables of frequencies and cross tabulations were done using the Statistical Product and Service Solution (SPSS version 16) software. Transcripts of the coded qualitative data were analysed into themes using QSR N6 (version 6) software. Extracts of some significant statements were used to enrich the quantitative data.

Limitation of the Study

The major limitation of the present study is that the sample size was small. A study as important as this one should have been done on a much larger scale with respondents drawn from districts selected from all the ten regions of the country to make the results highly representative, this could not be done because the researcher had financial constrained by time and money. These difficulties notwithstanding, the findings of this study offer valuable insights into the issue of integration of TM into the national healthcare delivery system and serve as a spring board for further study into this very important subject. In view of the small sample size the results should be interpreted with caution.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

Introduction

This chapter presents the findings of the study. The presentation is descriptive in nature and relies on the use of frequencies and percentages in the analyses. Specific issues discussed include profile of respondents, the acceptance of TM by SMPs, collaboration between TMPs and SMPs and the possible practice of TM in the formal healthcare delivery system in Ghana.

Summary of the characteristics of respondents

A total of twenty- five SMPs responded to the questionnaires. Incidentally, they were all male scientific medical practitioners. Only four female SMPs were found in the field. They were Italian nationals practising at Our Lady of Grace Catholic Hospital at Bremen Asikuma. Their inclusion in the study would have enriched the findings since they would have presented us with the feminine perspective on the issues under consideration. Unfortunately, they declined to participate in the study citing lack of adequate knowledge of traditional medicine in Ghana.

Age distribution of respondents

The ages of the respondents ranged from 25 years to 57 years. As many as 15 (60%) of them fell between ages 25 and 39. This means a sizeable number of

them were found within this age bracket. The age distribution of respondents is shown in Fig. 2.

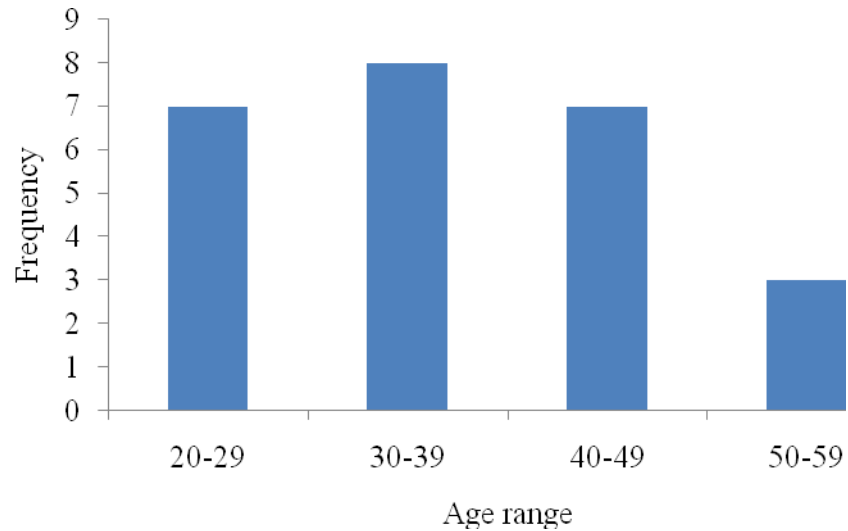


Fig. 2: Age distribution of respondents

Ethnicity of respondents

The respondents of the study were predominantly of Akan extraction. In all they were 16, representing 64.0%. The rest of them were made up of Guan 4 (16.0%), Ewe 3 (12.0%) and Ga-Adangbe 2 (8.0%). Fig.3 shows the ethnic grouping of the respondents.

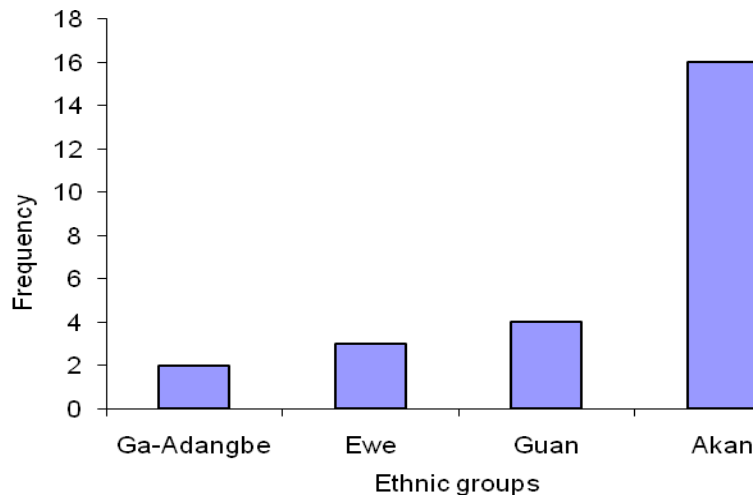


Fig. 3: Ethnic distribution of respondents

Marital status of respondents

Eighteen respondents representing a total of 72.0% were married, two (2) representing 8.0% were divorced, and five (5) representing 20% were single. Table 4 presents the marital status of the respondents.

Table 4: Marital status of respondents

Marital Status	Frequency	Percentage
Single	5	20.0
Married	18	72.0
Divorced	2	8.0
Total	25	100.0

Source: Field data (2007)

Religious background of respondents

The respondents were predominantly Christians. In all, there were 23 of them representing 92.0%. Out of the number, 10 (40%) were Catholics, 11(44%) were Protestants and only 2 (8%) were Pentecostals. Apart from the Christians, there were two (2) representing 8.0% who were Moslems. Table 5 shows the religious background of the respondents.

Table 5: Religious background of respondents

Religion	Frequency	Percentage
Christians	23	92.0
Moslems	2	8.0
Total	25	100.0

Source: Field data (2007)

Educational background of the respondents

Eleven of the respondents representing 44.0% were holders of Bachelor of Medicine and Bachelor of Surgery (M.B, Ch.B.) degrees, six of them representing (24.0) had, in addition to their basic M.B, Ch.B. degrees, pursued further studies and had obtained a Master of Public Health (MPH) degree.

Respondents' areas of specialization

Twelve of the respondents representing 48.0% considered themselves as general practitioners, whilst 13 (52.0%) designated themselves as specialists. The specialists sub-group was made up of Obstetricians and Gynaecologists, Public Health specialists, Dermatologists, Psychiatrists and Paediatricians.

Duration of practice of respondents

On the question of duration of practice 10 (40.0%) respondents indicated they had been on the job between one month and ten years. The data also indicated that a great majority of the respondents 19 (76%) have practised medicine for over 6 years. This is good news for the region because most of the SMPs practising in the region have experience in their fields and were also in their prime ages. Table 6 presents the duration of practice of the respondents.

Table 6: Duration of practice of respondents

Years range	Frequency	Percentage
0-5	6	24.0
6-10	4	16.0
11-15	6	24.0
16-20	3	12.0
21 and above	6	24.0
Total	25	100.0

Source: Field data (2007)

Distribution of respondents by rank

Almost half of the respondents numbering 11(44%) were Medical Directors. This means they were heads of the various district hospitals sampled. Seven (7) of them (28.0%) were of the rank of medical officer. Only two (2) (8.0%) were of the rank of principal medical officer. Table 7 gives the distribution of respondents by rank.

Table 7: Distribution of respondents by rank

Rank	Frequency	Percentage
Medical Director	11	44.0
Principal Medical Officer	2	8.0
Senior Medical Officer	5	20.0
Medical Officer	7	28.0
Total	25	100.0

Source: Field data (2007)

Perceived safety of traditional medicine

According to Nyarko and Asiedu-Gyekye (2005), a medicine is safe when it has minimal adverse effects on living organisms including human beings. Safety is an important consideration for the examination of any TM used for the treatment of illnesses. Safety issues concerning toxicity are therefore very critical in the process of research and development of TM (Addy, 2008). Consequently, the respondents were asked to rate the safety levels of TM. As could be seen in Figure 4, 13 respondents representing 52% perceived the safety levels of TM as very good, good, and fair. Conversely, 12 respondents, representing 48% rated the safety levels of TM as either poor or very poor. This result confirms that of Sittie (2008) who reported that pesticide residue and heavy metals such as lead and mercury are found in some herbal medicines. He also reported that some herbal medicines are adulterated with synthetic drugs such as analgesics, antibiotics and tranquilizers.

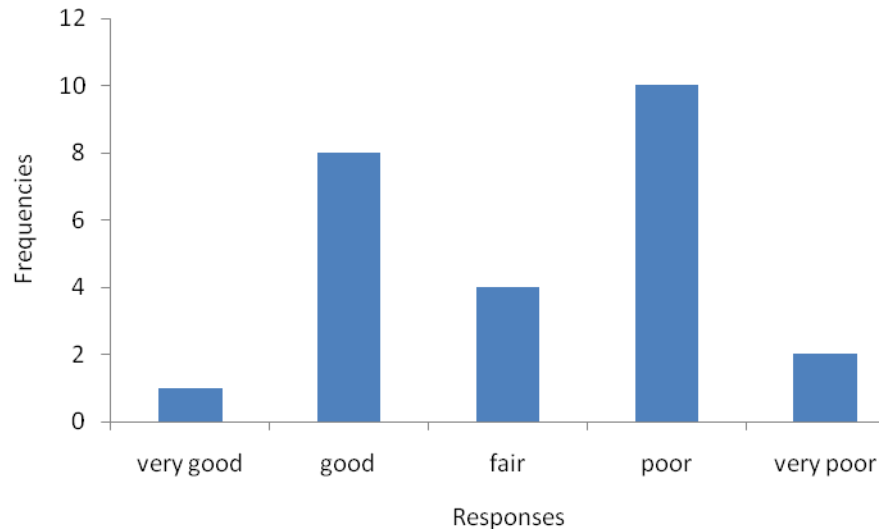


Fig. 4: Perceived safety levels of traditional medicine

Perceived safety of traditional medicine by age

Further analysis of the data showed that 5 (71.4%) of the respondents in the age bracket of 20 – 29 perceived the safety levels of TM as Good while only 2 (28.6%) rated it as poor. This finding is consistent with that of Astin, Marie, Pelletier, Hansen and Haskell (2998) who found age as one of the factors that influenced scientific medical practitioners practice of, referrals for, or interest in TM.

Table 8: Perceived safety of traditional medicine by Age of respondents

Age	Safety levels of traditional medicine (%)					Total
	V. Good	Good	Fail	Poor	V. Poor	
20 – 29	-	5(71.4)	-	2(28.6)	-	100
30 – 39	-	2(25.0)	2(25)	4(50)	-	100
40 – 49	-	1(14.3)	1(14.3)	4(57.1)	1(14.3)	100
50 – 59	1(33.3)	-	1(33.3)	-	1(33.3)	100

Perceived safety of traditional medicine by duration of practice

A detailed analysis of the data with respect to perceived safety of TM by duration of practice showed that whereas 5(83.3%) of the respondents who have practised scientific medicine between 0-5 years perceived TM as Good, all the respondents 4 (100%) who have practised scientific medicine between 6 – 10 years perceived its safety levels as poor. This finding corroborates that of Botting and Cook (2000) who found that, years of experience is one of the key factors that influences either positively or negatively how SMPs perceive TM.

Table 9: Safety of traditional medicine by duration of practice

Duration of Practice	Safety of traditional medicine (%)					Total
	V. Good	Good	Fail	Poor	V. Poor	
0 - 5	-	5(83.3)	-	1(16.7)	-	100
6 - 10	-	-	-	-	4(100)	100
11 - 15	-	3(50.0)	2(33.3)	-	1(16.7)	100
16 - 20	-	-	1(33.3)	1(33.3)	1(33.3)	100
21 – 25	1(16.7)	-	1(16.7)	4(66.7)	-	100

Perceived efficacy of traditional medicine

Efficacy refers to the ability of a medicine to treat or control a illness (MOH, 2004). Respondents were questioned on their perception of the efficacy or effectiveness of TM and also what informed those perceptions. As could be seen in Table 10, 45.8% of the respondents perceived TM as very good, good or fair. This is similar to the reports of Addy (2008), Wambebe (2008), Addae-Mensah

(1992), Ayitey-Smith (1989) and Evans-Anfom (1986). They reported that several herbs which include cryptolepis, canthium, neem tree, thonninga sanguine and marantochloa flexuosa, cassia occidentalis, khaya senegalensis, scoparia dulcis and pawpaw are effective in treating several illnesses such as malaria, hypertension, asthma, diabetes, boil and diarrhoea. A further analysis of the data revealed that there are no significant variations between the responses of specialists and G.P.s. Thirty-four percent and 30% of the Specialists and G.P.s respectively indicated that TM is efficacious. The respondents ascribed numerous and varied reasons for holding the view that TM is efficacious in treating and controlling illnesses. A Public Health Specialist, for instance, had a philosophical explanation for his belief in the efficacy of traditional medicine. He stated that throughout the ages “wherever there is a illness the treatment is in the soil”. Another respondent added that “even in the modern medical practice certain medications that can be put under the generic term TM are resorted to when orthodox(scientific) medicine fails”. A third respondent mentioned: “after unsuccessfully using scientific medicine to treat their conditions, some patients get better when they use TM”.

Fifty-four percent (54.2%) of the respondents perceived TM as either poor or very poor. These respondents proffered several reasons for holding the view that TM is not effective in the treatment of illnesses. A respondent remarked: “I do not believe that TM is efficacious at all”. Another commented: “it is not really efficacious because it has never worked”. He questioned the sincerity of those who claim TM works well. A Senior Medical Officer said that he did not think that TM was effective because “TMPs do not know anything about the human

body’’. One other respondent said: “No one can claim that TM is efficacious because there is very little scientific evidence to support its claim of efficacy’’.

Table 10: Perceived efficacy of traditional medicine

Responses	Frequency	Percentage
Very good	1	4.2
Good	8	33.3
Fair	2	8
Poor	4	16.7
Very poor	9	37.5
Total	24	100.0

Source: Field data (2007)

Perceived efficacy traditional medicine by age

A detailed analysis of the data showed that majority of the respondents 5(71.4%) who fall within the age range of 20 – 29 rated the efficacy of TM as Good while 2(28.6%) perceived it as very poor. This finding is similar to that of Ernst, Resch and White (1995) who found that age is one of the critical factors with respect how SMPs perceive the efficacy of TM.

Table 11: Perceived efficacy of traditional medicine by Age of respondents

Age	Efficacy of traditional medicine (%)					Total
	V. Good	Good	Fail	Poor	V. Poor	
20 – 29	-	5(71.4)	-	-	2(28.6)	100
30 – 39	-	2(25.0)	2(25.0)	-	4(50.0)	100
40 – 49	-	1(14.3)	-	3(42.9)	3(42.9)	100
50 – 59	1(50.0)	-	-	1(50.0)	-	100

Efficacy of traditional medicine by duration of practice

The data indicates that majority 5(83.3%) of the respondents who have practised medicine between 0 – 5 rated the efficacy of TM as Good whilst 1(16.7%) perceived it as very poor. This finding is consistent with that of Straub and Henley who reported that scientific medical practitioners with several years of experience tended to perceive TM as efficacious.

Table 12: Perceived efficacy of traditional medicine by duration of practice

Duration of Practice	Efficacy of traditional medicine (%)					Total
	V. Good	Good	Fail	Poor	V. Poor	
0 – 5	-	5(83.3)	-	-	1(16.7)	100
6 – 10	-	-	-	-	4(44.4)	100
11 – 15	-	3(50.0)	2(33.3)	-	1(16.7)	100
16 – 20	-	-	-	1(50.0)	1(50.0)	100
21 – 25	1(16.7)	-	-	3(50.0)	2(33.3)	100

Perceived quality of traditional medicine

The quality of traditional medicines has to do with issues concerning the absence or presence of foreign material in the medicine. It also includes issues such as the packaging and labelling of medicines (Sittie, 2005).

Respondents were asked to assess the quality of services rendered by TMPs in Ghana. As could be seen in Table 13, an overwhelming majority (76%) rated it as very good, good or fair. This finding is similar to that of Yeboah (2009) who reported that the FDB has registered about 1,007 herbal products and given authorization for their marketing in Ghana. The rest of the respondents numbering six (24%) perceived TM as either very poor or poor. This finding is also consistent with that of Sittie (2008) who reported that a large amount of ashes, heavy metals, residue of fumigants and pesticides as well as synthetic medicines such as analgesics and tranquilizers are found in some herbal medicines.

Table 13: Perceived quality of traditional medicine

Responses	Frequency	Percentage
Very good	2	8
Good	9	36
Fair	8	32
Poor	4	16
Very poor	2	8
Total	25	100

Source: Field data (2007)

Perceived quality of traditional medicine by age

The data showed that all the respondents 5(100%) within the age group 20-29 rated TM as either Good or Fair. This finding is consistent with that of Lewith, Hyland and Gray (2001) who reported that younger physicians were more likely to express positive attitudes towards TM than the older ones.

Table 14: Perceived quality of traditional medicine by Age of respondents

Age	Quality of traditional medicine (%)					Total
	V. Good	Good	Fail	Poor	V. Poor	
20 – 29	-	3(42.9)	1(14.3)	-	-	100
30 – 39	-	7(87.5)	1(12.5)	-	-	100
40 – 49	-	3(42.8)	2(28.6)	-	2(28.6)	100
50 – 59	-	2(66.7)	1(33.3)	-	-	100

Perceived quality of traditional medicine by duration of practice

The data indicates that respondents who have practised medicine between 6 – 10 years rated TM as either Good or Fair. This finding is similar to that of Jump, Yarkbrough, Kilpatrick and Cable (1998) who found that physicians in practice less than 10 years considered TM therapies more legitimate than a other physicians.

Table 15: Perceived quality of traditional medicine by duration of practice

Duration of Practice	Quality of traditional medicine (%)					Total
	V. Good	Good	Fail	Poor	V. Poor	
0 – 5	-	1(16.7)	2(33.3)	3(50.0)	-	100
6 – 10	-	2(50.0)	2(50.0)	-	-	100
11 – 15	-	1(16.7)	4(66.7)	1(16.0)	-	100
16 – 20	-	2(66.7)	1(33.3)	-	-	100
21 – 25	-	3(50.0)	2(33.3)	1(16.7)	-	100

General training needs of traditional medical practitioners

In earlier studies, Ayitey-Smith (1989) and Evans-Anfom (1986) had reported that education is very essential in the effort to modernize traditional medicine and eventually integrate it into the formal healthcare delivery system. In their view, educated Traditional Medical Practitioners (TMPs) would be able to document some aspects of their practices, keep records of all their remedies as well as the case histories of their clients, practise in a hygienic environment and formulate their herbal remedies in standard dosable forms. The present study solicited the views of the respondents with respect to the training needs of TMPs.

The results of the present study are closely in line with the position held by Ayitey-Smith (1989), and Evans-Anfom (1986) that Traditional Medical Practitioners should be trained in order to offer quality service to their clients. Indeed, a great majority of the respondents 21(84.0%) suggested that TMPs should be equipped with basic literacy skills such as reading and writing so that they would be able to document their medical ideas, practices and also keep

record of case histories of their clients. The results of this study clearly indicate that a majority of the respondents 15 (60.0%) supported the exposure of TMPs to the preparation of herbal medicines in standard dosable forms. 13 (52.0%) supported the teaching of proper diagnostic skills to TMPs. A minority 7 (28.0%) of respondents were of the view that TMPs should be taught how to identify side effects of medicines. Three of the respondents did not answer the question. Table 16 depicts the suggestions made by respondents in respect of training needs of traditional medical practitioners.

Table 16: Training needs of traditional medical practitioners

Training needs	Frequency	Percentage
Basic literacy skills	21	31.8
Proper diagnostic technique	13	19.7
Personal and environmental hygiene	5	7.6
Standardized dosage of medicines	15	22.7
Preservation and safety of medicines	5	7.6
Identification of side effects of medicines	7	10.6

Source: Field data, (2007). (Multiple Responses)

Illnesses Traditional Medical Practitioners should manage and treat

The majority of respondents numbering 18 (72.0%) suggested that TMPs should manage and treat minor ailments such as diarrhoea, minor aches and pains, simple fracture, uncomplicated malaria, common cold, coughs and minor wounds and ulcers. Out of this number, ten (78%) were specialists, while the remaining eight (66.6%) were GPs. Five of the respondents, four GPs and one specialist,

suggested that TMPs should be allowed to manage and treat any ailment. Only two (2) (8%) suggested that they should manage and treat psychological disorders. The respondents' views regarding types of illnesses TMPs should manage and treat in Ghana are shown in Table 17.

Table 17: Illnesses Traditional Medical Practitioners should treat by type of Scientific Medical Practitioner

Type of SMP	Illnesses			Total
	Minor	Any	Psychological	
GP	8 (66.7%)	4 (33.3)	0	100%
Specialist	10 (76.9%)	1 (7.7%)	2(15.4%)	100%

Source: Field data (2007)

Attitudes towards integration of Traditional Medicine into the formal health service

According to Eagly & Chaiken, attitude is “a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor” (1993, p.1). This study explored the evaluative orientation of SMPs towards traditional medicine. The data gathered show that 16 (64.0%) representing nearly two-thirds of the respondents favoured the integration of TM into the national healthcare systems in Ghana. In other words, they positively evaluated the integration of TM into the national healthcare delivery system. Nine (36.0%) of them making up a little over one-third, flatly rejected the idea of integration of the two medical systems. The results of this study confirm the findings of an earlier study conducted by Pearce (1982) in Nigeria where she

found that a majority of the respondents (63%) supported the integration of the two medical systems.

A further analysis of data showed that both GPs and Specialists were of the view that TM should be integrated into the formal healthcare delivery system. In other words, they showed positive attitudes towards integration of TM into the national healthcare delivery system. Eight of the GPs (66.7%) favoured integration of the two medical systems, whereas four (33.3%) were against it. In the case of the Specialists, while 8 (61.5%) supported integration of the two medical systems, only 5 (38.5%) were against it. The respondents views with respect to their attitudes towards integration of TM into the national health service are presented in table 18.

Table 18: Attitudes of Scientific Medical Practitioners towards integration of traditional medicine into formal health service

Practitioner	Attitudes				Total
	S A	A	S D	D	
GP	3(25.0%)	5(41.6%)	1(8.4%)	3(25.0%)	100
Specialist	8(61.5%)	2(15.4%)	2(15.4%)	1(7.7%)	100

SA- Strong Agree; A - Agree; SD - Strongly Disagree; D - Disagree

Source:Field data (2007)

Establishment of joint clinics

Although the respondents generally supported integration of TM into the formal healthcare delivery system, they did not want to work in health institutions which have traditional medicine units or sections staffed by TMPs who are charged with the responsibility of prescribing and dispensing herbal medicines and treating illnesses. This posture of SMPs is reflected in their responses to the question 'Would you work along-side TMPs in the same clinic or hospital in Ghana?' The majority of them 16 (64%) disapproved of the idea of working alongside TMPs in the same health institution. Of this, a majority who opposed the idea of working alongside TMPs, 8 (50%) were GPs and another 8 (50%) were Specialists. Only 4 GPs (33.3%) of GPs and 5 Specialists (38.5) of Specialists favoured the idea that TMPs and SMPs could practise in the same healthcare facilities. One of them, a Senior Paediatrician, explained that TMPs and SMPs could complement each other. Another Senior SMP, a Gynaecologist, stated that working as a team would afford SMPs the opportunity to learn traditional medical ideas and practices. A third SMP, a Senior GP, who is in favour of setting up joint clinics for SMPs and TMPs, stated that if the setting up of joint clinics was a policy directive from the Ministry of Health (MoH) and standards of practice and roles were clearly defined, and then he would welcome it. The respondents, who objected to the establishment of joint clinics, explained that TMPs had a different understanding of normal body functions and illness processes. One of them commented that a joint clinic is likely to generate conflict since the two medical systems were not the same. Another one, who was a senior medical officer, said that his opposition was due to the fact that the two healthcare

practitioners did not think on the same wavelength. In addition, another one stated that the two medical systems could not co-exist because they both had different functions and philosophies. This Scientific Medical Practitioner wondered where TMPs would fit in the national healthcare system. The observation of Pearce (1982) is similar to this finding. According to her, although SMPs generally favour integration, they disapprove of the possibility of working alongside TMPs and eventually accepting them as equal partners in the healthcare delivery system. Distribution of responses on the attitudes of SMPs towards the establishment of joint clinics is presented in table 19.

Table 19: Attitudes towards establishment of joint clinics by type of Scientific Medical Practitioner

Practitioner	Attitudes			Total
	In favour	Against	Undecided	
General Practitioner	4 (33.3 %)	8 (66.7%)	0	100
Specialist	5 (38.5 %)	8 (61.5%)	0	100

Source: Field data (2007)

The use of traditional medical ideas and practices

From Table 20 the reader will observe that a great majority of respondents, numbering 22 (88%), indicated that they did not use medical knowledge and methods from TM. A Senior Psychiatrist justified his position by stating: ‘‘There is no convincing evidence that traditional medicine does better than scientific medicine in my area of specialty’’. Another respondent explained that he did not use traditional medical ideas and practices because, as he put it:

“there is a world of difference between TM and scientific medicine”. Only three of the respondents (12%) indicated that they used traditional medical ideas, medicines and practices. One of these three respondents said that he administered herbs to cure serious illnesses. Another one indicated he had adopted TMPs’ art of putting their patients at ease before treating them. A third respondent mentioned that he had adopted a very useful practice of the TMPs which had to do with tying an area above a spot bitten by poisonous animals such as snakes before administering treatment. This finding is in sharp contrast with results obtained by Pirotta et al. (2000), who found that more than a third (38%) of General Practitioners in Victoria, Australia, had used ideas, practices and medicines of complementary and alternative medicine (CAM).

Table 20: Use of traditional medical ideas, medicines and practices

Response	Frequency	Percentage
Don’t use TM	22	88
Use TM	3	12
Total	25	100.0

Source: Field data (2007)

Referral of cases to Traditional Medical Practitioners

The data gathered showed that most of the respondents numbering 21 (84%) had never referred patients to TMPs for treatment. Only four respondents representing 16% of all respondents stated that they had ever referred their clients to TMPs. Two of them (8%) said they had rarely referred their patients, while two others (8%) said they often referred cases to TMPs. This finding is in contrast to

that of Pirotta et. al. (2000) who found out that a majority of GPs in Victoria, Australia, had referred patients to complementary and alternative medical (CAM) practitioners.

Some of the respondents who indicated they had never referred cases to TMPs seemed to have been constrained by medical policy and law. They explained that laws regulating medical practice in Ghana did not permit them to refer patients to TMPs for medical attention. They further observed that if they referred cases to TMPs and something went wrong they could be sanctioned by health authorities, especially the Medical and Dental Council. They suggested that the law and policy should be amended so that they could comfortably refer cases to TMPs. Table 21 presents SMPs' referral of cases to TMPs in Ghana.

Table 21: Distribution of referral of cases to Traditional Medical Practitioners

Response	Frequency	Percentage
Never refer	21	84
Rarely refer	2	8
Often refer	2	8
Total	25	100.0

Source: Field data (2007)

Types of cases referred to Traditional Medical Practitioners

Out of the four respondents, who stated that they had ever referred cases to TMPs, only one of them was able to indicate quite clearly the type of case that he

had referred to TMPs. This respondent said he referred cases such as simple fracture and spiritual problems to traditional healers.

Referral of cases to Scientific Medical Practitioners by Traditional Medical Practitioners

The majority of the respondents numbering twenty-two (88%) indicated that they had patients referred to them by TMPs. Of this, six representing 24% said the referral was very often, while thirteen (52%) indicated that it was often. Only three respondents (12%) professed that they rarely received cases from TMPs. Four (12%) of the respondents stated that they had never received cases from TMPs. It should be noted that when the three respondents were asked whether they found out from their patients as to whether they had seen TMPs before seeing them, they replied in the negative. Although these respondents did not ascertain whether or not their clients had been referred to them by TMPs, there is the possibility that that happened because, according to Twumasi (1988), due to the paucity of healthcare facilities, patients suffering from any illness or social problem usually “shop around to seek help”.

Types of cases referred to Scientific Medical Practitioners

The data collected showed that more than a third of the respondents numbering 12 (48%) indicated that TMPs referred all manner of illnesses to them. These illnesses included headache, cold, coughs and malaria. Four other respondents representing sixteen percent reported that major obstetric cases were referred to them. Two others representing eight percent mentioned that major psychiatric disorders such as psychoses and two representing eight percent

referred minor illnesses such as uncomplicated malaria to them by TMPs. Table 22 below presents the distribution of cases referred to SMPs by TMPs. Five of the respondents did not answer the question.

Table 22: Types of cases referred to Scientific Medical Practitioners

Cases	Frequency	Percentage
Major Psychiatric Disorder	2	8.0
Obstetric cases	4	16.0
Minor illnesses	2	8.0
All illnesses	12	48.0
Non-response	5	20.0
Total	25	100.0

Source: Field data (2007)

Traditional medical practices that Scientific Medical Practitioners were willing to learn

A slim majority of the respondents numbering 14 (56%) indicated that SMPs could learn a lot by collaborating with TMPs. A quarter of them (24%) expressed interest in learning and adopting the communication strategies of TMPs. Twenty percent showed interest in learning fracture management, while only 3 (12%) indicated their willingness to learn the preparation of herbal medicines. This finding is similar to that obtained by Pirota *et al.* (2000). They write that SMPs in Victoria, Australia, are willing to learn a whole range of traditional medical practices such as preparation of herbal medicine, meditation,

acupuncture, aromatherapy, spiritual healing and hypnosis. A third of them numbering 11 (44%) did not show interest in any of the traditional medical practices. They said there was nothing to learn from TMPs. They buttressed their position with questions like: “what can an educated person learn from an uneducated one”? These statements seem to suggest that SMPs perceive their profession to be superior to that of TMPs. Figure 6 gives a distribution of the various traditional medical practices that SMPs showed interest in learning about.

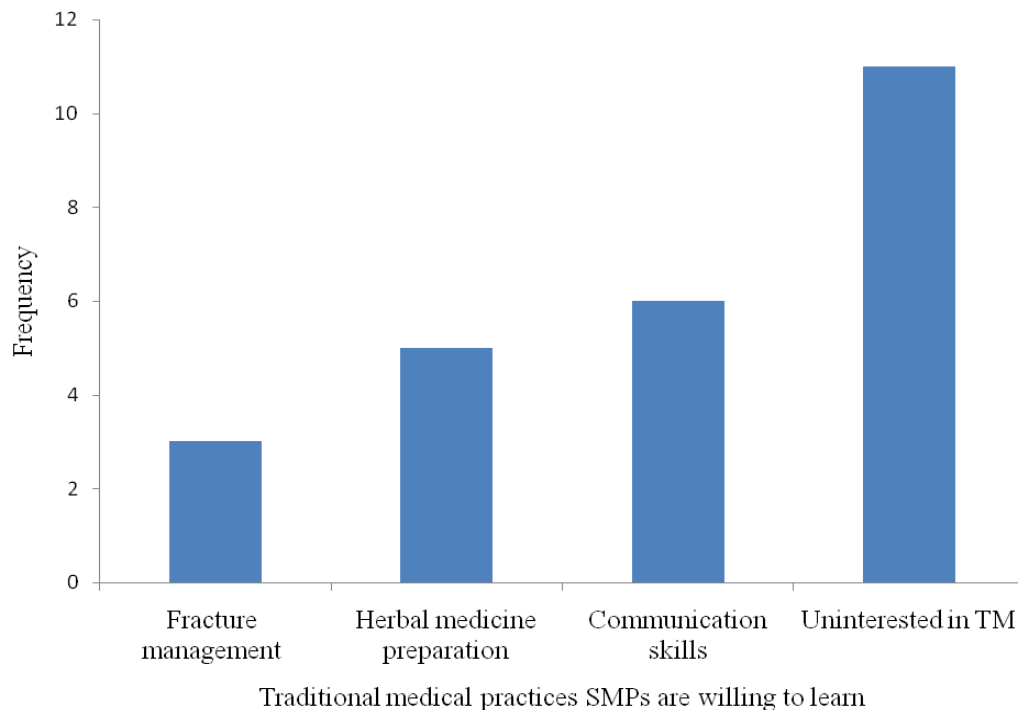


Fig. 5: Traditional medical practices that Scientific Medical Practitioners are willing to learn

Traditional Medical Practitioners who could be integrated into the health service

A substantial proportion of the respondents numbering 22 (88%) indicated that TMPs such as herbalists, traditional birth attendants (TBAs) and bonesetters could easily be absorbed into the mainstream healthcare system. Out of this number 11 (44 %) specifically suggested that herbalists could be integrated into the formal healthcare delivery system; four representing 16% also suggested the inclusion of TBAs into the formal healthcare delivery system; and a little over a quarter numbering 7 (28 %) specifically mentioned bonesetters as the category of TMPs they thought could be easily integrated into the formal healthcare delivery system. These responses are not surprising because according to Pearce (1982) ,the practices and ideas behind bonesetting, herbalism and traditional midwifery are coterminous with scientific medicine. Both TM and scientific medicine stress that healing is effected mainly due to the efficacy of the drugs practitioners prescribe to their clients. Table 23 clearly depicts the categories of TMPs who, according to the respondents, could be integrated into the healthcare delivery system.

Table 23: Traditional Medical Practitioners who could be integrated into the formal health service

Traditional medical practitioner	Frequency	Percentage
Herbalists	11	44
Bonesetters	7	28
TBAs	4	16
Non Responses	3	12
Total	25	100.0

Source: Field data (2007)

Importance of Traditional Medicine in the formal health service in Ghana

A great majority of the respondents numbering 23 (92%) stated that TMPs play an important role in the healthcare delivery system in Ghana. Out of the number, three (3) of them representing 12% described the role of TMPs as very important; nearly a third representing 32% indicated that it was important; and 12 representing 48% felt it was fairly important. Two respondents representing 8% did not see anything good in TMPs.

Explanations given by respondents for their positions were many and varied. A respondent argued that TMPs were important. As he put it: “they serve as auxiliary healthcare delivery outlets and do help a lot by way of decongesting healthcare facilities especially of hypochondriacs”. Another respondent indicated that TMPs complemented the work of the over-stretched SMPs since they were available in communities where scientific healthcare facilities do not exist. Some respondents also felt that TMPs were important because their therapies effectively managed common fractures. The results confirm those of Green and Makhubu (1984) who found in Swaziland that some TM therapies were more effective in treating certain illnesses and also assisted in reducing the huge workload on the few orthodox doctors. Table 24 shows the importance, which SMPs attach to TM in Ghana’s healthcare delivery system

Table 24: Importance of Traditional Medicine in formal health service in Ghana

Importance of TMPs	Frequency	Percentage
Not important	2	8.0
Fairly important	12	48.0
Important	8	32.0
Very important	3	12.0
Total	25	100.0

Source: Field Data, 2007

The Advantages of Traditional Medicine

To ascertain the usefulness of TM in the national healthcare delivery system, respondents were asked to catalogue some of the advantages of TM. More than a third of the respondents representing 35.2% stated that TM provided an alternative health care to its numerous clients. Similarly, close to a third of the respondents, representing 27.4 %, stated that TM provided its clients with holistic care. Fifteen percent (15%) of the respondents also said TM’s advantages lay in its ability to assist in reducing maternal mortality, while 11.7% indicated that TM services were affordable. These findings are similar to those of Oyeneye (1985). According to him, TMPs were easily available and their services were affordable. Furthermore, their clients were sometimes at liberty to settle their bills in cash or kind after treatment. Apart from that, it is believed that TM is more effective in the management of certain ailments such as psychological disorders. According to Brokensha (1966:187), Mr. A.E. Inkumsah, a Minister of Health in Dr. Kwame

Nkrumah's government, explained that TMPs had made incalculable contributions to healthcare, especially in the sub-field of psychiatry where they had produced a much quicker and more complete cure of deranged minds.

Weaknesses of Traditional Medical Practice

When respondents were given the opportunity to write comments about the unappealing characteristics of Traditional Medical Practice, they noted several of them. These are: peddling of herbal medicines that do not work; operating in an unhygienic environment; improper diagnostic kits; practitioners not aware of the side effects of their medicines; and one medicine used to cure all kinds of illnesses. Table 25 presents the weaknesses of Traditional Medical Practice. These results confirm the findings of a study by Senah et al. (2001) which show that Ghanaian consumers and non-consumers were not happy with some aspects of Traditional Medical Practice.

Table 25: Weaknesses of Traditional Medical Practice

Weaknesses	Frequency	Percentage
Peddling of fake medicines	12	12.8%
Operation in unhygienic environment	18	19.1%
Improper diagnosis/absence of diagnostic kits	8	8.5%
Practice not properly regulated	14	14.9%
Practitioners unaware of side effects of medicines	22	23.4%
One medicine curing all kinds of illnesses	20	21.3%

Source: Field data,(2007) (multiple responses)

Suggestions aimed at improving Traditional Medicine

When respondents were asked to make suggestions aimed at improving traditional medical practice, they offered several suggestions. All the respondents numbering twenty-five suggested the establishment of a training institute where training courses would be conducted for new entrants and existing TMPs. Almost all of them numbering 24 suggested that all herbal medicines should be formulated in dosable forms and packaged in the form of tablets, capsules and tea sachets. Furthermore, twenty of them suggested that all herbal medicines should be subjected to the full rigours of scientific testing in order to establish their efficacy and safety levels. The results of this study are in consonance with suggestions made by scholars, health planners and administrators with regard to the improvement of Traditional Medical Practice in Ghana. For instance, as stated earlier in chapter 2, Professor Agyeman Badu Akosa, a former Director-General of the Ghana Health Service, in a news report, published in the 'Ghanaian Times' of November 16, 2004, is reported to have suggested to all TMPs to submit their herbal products to the Centre for Scientific Research into Plant Medicine and the Food and Drugs Board for their efficacy and safety levels to be ascertained. Two decades ago, Ayitey-Smith (1989) proposed the development of an educational programme for the training of all existing and prospective TMPs. Table 26 shows suggestions made by the respondents.

Table 26: Distribution of suggestions by Scientific Medical Practitioners aimed at improving Traditional Medicine

Suggestions	Frequency	Percentage
Establishment of a training institute	25	26.3
All herbal medicines should be tested	20	21.1
Practice should be regulated by an independent body	16	16.8
All herbal medicines should be formulated in dosable forms	24	25.3
Experiences and practices of TMPs should be documented	10	10.5

Source: Field data, (2007) (Multiple responses)

Respondents' views about the Herbal Medicine Programme at Kwame Nkrumah University of Science and Technology and the Placement of Graduates of that Programme

As stated earlier in chapter 1, Kwame Nkrumah University of Science and Technology introduced a 4-year degree programme in herbal medicine at its Faculty of Pharmacy during the 2001/2002 academic year. According to Fleischer (2004), the thrust of the programme was to equip the students with knowledge in human and plant sciences, clinical and diagnostic skills, and the scientific basis for the treatment of illnesses with plant medicine. In effect, the essence of the programme is to formalize the training of herbal medical practitioners. The first batches of graduates of the programme passed out in the

year 2006 and are practising in various healthcare related institutions such as FDB and CSRPM in the country. However, there is a problem with the placement of the graduates within the formal healthcare sector. The study, therefore, solicited the views of SMPs on the issue.

Respondents were asked to indicate whether or not they were aware of the existence of the programme. Most of them, numbering 22 (88%), answered in the affirmative while only three (3) representing 12% indicated they had not heard of it. Out of the 22 who stated that they were aware of the existence of the programme, 14 (56%) said they were satisfied with it; five representing 20%, indicated that they were not satisfied with it; and six (6) representing 24%, were either indifferent or said they did not know anything about its content.

When they were asked to indicate where to place the graduates of the programme, who are otherwise known as medical herbalists (MH), four of the respondents representing 16% said that they should be placed in the rank of medical assistants; two (8%) indicated that they should be on the same level with pharmacists; four (16%) of them said they should be placed on the same level with nurses; and almost two-thirds representing 64% of the respondents indicated that they should not be placed in the rank of any of the existing health professional groupings within the Ghana Health Service (GHS). Interestingly, none of them suggested that MH should be placed in the rank of scientific medical practitioners. When pressed to offer an explanation, ten (40%) of them pointed out that the differences in the duration of the training of SMPs and medical herbalists make it impossible to place them on the same level. They argued that whereas it takes between six and eight years to train as a SMP, one needs to spend

only between four and five years to qualify as a medical herbalist. This seems to suggest that scientific medical practitioners in general are not willing to share the dominant position that they occupy in health service with other professionals, be they health professionals or not. In an attempt to safeguard their dominance in the health service, SMPs have struggled against other healthcare providers such as bonesetters, midwives, osteopaths and chiropractors. This posture of the respondents supports Pearce's conclusion in a study involving scientific medical practitioners. She writes: "university trained physicians are the undisputed head of the western medical team today" (Pearce, 1982).

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter gives a brief summary of the study, the conclusions drawn from the results, the recommendations made and suggestions for future research.

Summary

This study investigated the perceptions and attitudes of SMPs towards the integration of TM into the mainstream healthcare system in Ghana. Specifically, the study examined the following research questions:

- Do general practitioners (GPs) of scientific medicine (SM) accept traditional medicine (TM) more than specialists?
- What is the nature of collaboration between scientific medical practitioners (SMPs) and traditional medical practitioners (TMPs) in Ghana's healthcare delivery system?
- What are the characteristics of TM that engender negative attitudes on the part of SMPs?
- Do SMPs consider TM important in the healthcare system?
- What would SMPs like to be done in order to integrate TM into the mainstream healthcare delivery system in Ghana?
- Which category of TMPs do SMPs think could be integrated into the formal healthcare system?

The study design

Exploratory study design that lends itself to the use of descriptive analysis was adopted. The merit of this design was that it enables a systematic collection of data using questionnaires designed for the purpose as well as analysis and presentation of the data.

The target population of this study was all SMPs practicing medicine in the District Hospitals in Central Region of Ghana. The researcher employed the purposive sampling technique to select all the 33 SMPs practicing in the 12 District Hospitals in the Central Region for the study. The rationale for selecting all SMPs working in the district hospitals was two-fold. First, the MoH (2005) indicates in its strategic plan for Traditional and Alternative Medicine Development in Ghana, that it would sponsor a Legislative Instrument (L.I.) that would introduce practice of traditional and alternative medicine in the district hospitals. Second, just as the National Health Insurance Scheme (NHIS) was introduced in the country using district hospitals, an attempt to integrate TM into the national healthcare delivery system is most likely to start at the District Hospitals. Of the 33 SMPs sampled, 21 of them work for District Hospitals managed by the Ghana Health Service (GHS), while the remaining 12 SMPs practice in District Hospitals run by the local Roman Catholic Church.

After a successful pilot study, the main fieldwork started in June and ended in August, 2007. By the end of the fieldwork, the researcher had collected 25 completed questionnaires from respondents in the various hospitals with the help of two research assistants. The figure represents 86.2% of the sample size.

Some of the SMPs appeared unwilling to participate in the study. They stated that they could not participate in the study because they were either busy attending to patients, did not know much about traditional medical practitioners or were just not interested in surveys.

Retrieving the questionnaires was very frustrating, time consuming and costly. It took a great deal of effort to retrieve the questionnaires from the respondents. The researcher undertook several visits to the study sites and called the respondents on phone in order to get them to fill out the questionnaires.

Notwithstanding the exploratory nature of the study and the limited size of sample, the findings of this study offer valuable insights into the issue of integration of TM into the national healthcare delivery system and serve as a spring board for further study into this very important subject.

The main results of the study are summarized as follows:

It became evident from the study that a little over half of the respondents (52%) perceived TM as safe.

In fact, they rated the safety levels of TM as very good, good and fair. However, close to half of the respondents (48%) perceived the safety levels of TM as either poor or very poor.

With regard to the effectiveness of TM, over half of the respondents (54.2%) rated TM as either poor or very poor. However, forty-five percent of the respondents (45.8%) perceived it as very good, good and fair.

The findings of the study clearly show that a great majority (76%) of the respondents perceived the quality of traditional medical products and services as

very good, good and fair. Only a few of them (24%) rated the quality of TM as either poor or very poor.

For the great majority (72%) of the respondents, TM should be used to treat minor illnesses such as uncomplicated malaria, simple fracture and common cold. A further examination of the data revealed that an overwhelming majority of GPs (66.6%) and specialists (78%) favoured the treatment of minor illnesses using TM.

A great majority (64%) of respondents supported integration of TM into the formal healthcare delivery system. The rest (36%) did not favour the integration of TM into the formal healthcare system. A more detailed analysis of the data indicated that a majority of GPs (66.7%) and specialists (61.5%) favoured integration of TM into the formal healthcare system.

A substantial number (64%) of the respondents indicated that they would not like to work with TMPs in the same health care facilities. A further analysis of the data did not show a substantial variation in attitude between GPs and specialists towards establishment of joint clinics. Both GPs (66.7%) and specialists (66.7%) did not support the establishment of joint clinics.

A great majority (84%) of the respondents had never referred cases to TMPs for reasons such as lack of confidence.

TMPs that could be integrated into the healthcare system: An overwhelming majority of respondents (88%) indicated their preference for herbalists, TBAs and bonesetters as TMPs who could easily be integrated into the formal health care system.

A great majority (92%) of respondents indicated that TM was either very important, important or fairly important in the healthcare delivery system. Only a very small minority (8%) said that TM was not important.

The major advantages of TM identified by respondents were its accessibility, availability, provision of holistic care, reduction of maternal mortality, low cost of service and effectiveness in treating psychological disorders.

The findings of the study revealed a number of unattractive aspects of TM such as fake medicines, operating in unhygienic environment, improper diagnosis of illnesses, unregulated nature of the practice and one medicine curing all kinds of illnesses.

The respondents suggested that in order to improve Traditional Medical Practice in Ghana the following should be done: train all TMPs, regulate and control and test the efficacy, safety and quality of all traditional medicines, formulate all herbal medicines in dosable forms, document TMPs' experiences and practices.

Conclusions

The results of the study have led to the following main conclusions with regard to the integration of TM and its practitioners into the formal healthcare system. The first is that, although the SMPs indicated an interest in integration of the two medical systems, when confronted with possible ways of working with TMPs they showed reluctance to accepting them as equal partners since they perceived their practice as inferior to theirs.

Second, it was discovered that many SMPs felt that they could learn something from some aspects of TM such as bonesetting and herbal medicine. These are the most measurable and quantifiable dimensions of traditional medical practice. The wish to learn more about these areas of TM while hesitating to absorb its practitioners brings to the foreground the problem of control and competition. In the history of the development of Scientific Medicine there have been many attempts by SMPs to absorb or control relevant materials from other groups (e.g. granny midwives) who are perceived as threats to their dominance over medical practice. When SMPs perceive that any group is encroaching on their turf, attempts are made to control the competition.

Finally, as noted by Hyma and Ramesh (1994) institutional integration implies a harmonious co-existence of both Scientific and Traditional Medicine, the findings of the study clearly shows that integration of TM and its practitioners into the national health service at the institutional level will face some challenges. TM and its practitioners may occupy an inferior or subordinate role in the health service. Furthermore, an attempt will be made by health planners and administrators to modernize TM, thereby losing its independence and indirectly justifying the presumed superiority of Scientific Medicine.

Recommendations

The following recommendations are made in connection with the integration of traditional medicine into the formal healthcare system.

1. In order to reduce the mistrust and lack of understanding of the philosophy that underlie Scientific Medicine and Traditional

Medicine, there must be regular consultations and dialogue between and among practitioners of the two medical systems. This may engender the needed trust and respect that the practitioners need to accord each other in order to develop and integrate TM into the national healthcare system.

2. The MoH in collaboration with the Medical Schools at University of Ghana, Kwame Nkrumah University of Science and Technology, University of Cape Coast and University for Development Studies should be encouraged to introduce the teaching of traditional medicine in their curriculum. This may help the SMPs better appreciate and understand traditional medical practice.
3. The MoH should sponsor the enactment of a Legislative Instrument to control and regulate traditional medical practice and also to allow traditional medicines to be prescribed and dispensed in public health institutions. This will also pave the way for practitioners to refer patients from one system to the other system.
4. The MoH should organise in-service training in the short and long term for traditional medical practitioners. The Bachelor of Science Herbal Medicine Programme being offered at Kwame Nkrumah University of Science and Technology should be strengthened and other universities should be encouraged to produce more medical herbalists to replace the ageing TMPs.

5. There is the need for government to adequately make resources available to research institutions and universities for research, clinical trials and production of traditional medicines.

Need for Further Research

This study with its limited scope has not exhausted all issues relating to integration of traditional medicine into the formal healthcare delivery system in Ghana. It is suggested that in the future a study be conducted to investigate the perception of a larger number of SMPs with regard to the integration of traditional medicine into the formal healthcare system. Furthermore, a study should be conducted into the possibility of incorporating traditional medical practice in the curricula of medical schools in Ghana.

REFERENCES

- Addae-Mensah, I. (1992). *Towards a rational scientific basis for herbal medicine-A Phytochemist's two-decade contribution*. Accra: Ghana University Press.
- Addae-Mensah, I. (1995). The Scope and Prospects of Traditional Medicine in modern health care and economic development.
In Osofo K.D.Quarm (Chair), *Traditional medicine and modern health care: Partnership for the future*. Symposium conducted in Accra on the policies on traditional medicine in Ghana.
- Addae, S. (1996). *History of Western Medicine in Ghana: 1880-1960*.
Edinburg: Durham Academic Press.
- Addy, M. E. (2003). *Putting science into the art of healing with herbs: From Smoked-Drum Kymograph to ELISA*. Accra: Ghana Universities Press.
- Addy, M. E. (2008, September 18). Cryptolepis: An African Traditional Medicine that Provides Hope for Malaria Victims. *The New Legon Observer*, 2 (15), 12-16.
- Ahmed, K. (2007, August27). Teaching Hospitals: How they started?
Daily Graphic, pp 23,150136.
- Ahorlu, C. K. (1997). Malaria-related beliefs and behaviour in southern Ghana: Implications for treatment, prevention and control. *Tropical Medical and International Health*, 2 (5), 488-499.

- Amoa, S. A. (2002). Human resource challenges and issues in health care delivery in Ghana: Suggested Options. *Leadership, Management and Administration, 1 (2)*, 47-68.
- Annandale, E. (1998). *The Sociology of Health and Medicine: A Critical Introduction*. Oxford: Blackwell.
- Archampong, E. Q. (1989) *Medical research and practice of medicine in West Africa*. Accra: Ghana Universities Press.
- Asiedu-Gyekye, I. J. & Nyarko, A. K. (2005). Efficacy assessment of plant medicines. In A.K.Nyarko, I.J.Asiedu-Gyekye & A.A.Sittie (Eds), *A manual of harmonized procedures for assessing the safety, efficacy and quality of plant medicines in Ghana* (pp.37-86).Accra: Ministry of Health,Ghana.
- Astin,J.A.,Marie,A.,Pelletier,K.R.,Hansen,E., & Haskell,W.L. (1998). A review of the incorporation of complementary/ alternative medicine by mainstream physicians. *Archives of Internal Medicine,158*, 2303-2310.
- Ayitey-Smith, E. (1988). *Drugs and Fate of Humanity*.Accra: Ghana Universities Press.
- Ayitey-Smith, E. (1989). *Prospects and scope of plant medicine in health care*.Accra: Ghana Universities Press.
- Ayivor, E. C. K. (1985). *An econometric study of the decision to seek medical care in West Africa: A case study of the Ghana Danfa health project using discrete choice modes*. Unpublished doctoral dissertation, University of Arizona.

- Azumah, V. (2006, December 2). Young TBAs to go blind? *Daily Graphic*, pp. 20,149911.
- Bai, A. (1985). Traditional medicine that kills: Uvulectomy in Tanzania. *World Health Forum*, 6,131-146.
- Ben-Arye, E., Frankel, M., Klein, A., & Scharf, M. (2008). Attitudes towards integration of complementary and alternative medicine in primary care: Perspectives of patients, physicians and complementary practitioners. *Patient Education and Counseling*, 70,395-402.
- Bensoussan, A. & Lewith, G.T. (2004). Complementary medicine research in Australia: A strategy for the future. *MJA*, 181(6), pp.331-333.
- Bodeker, G. (2001) Lessons on integration from the developing world's experience. *BMJ*,322, pp.164-167.
- Bonsi, S. K. (1973). *Traditional medical practice in modern Ghana*. Unpublished doctoral dissertation, University of Missouri-Columbia.
- Bonsi, S. K. (2000). Health Care. In K.Gavua (Ed.), *A Handbook of Ewe land: Vol. 2. The Northern Ewes in Ghana*. Accra: Woeli Publishing Services (pp. 200-212)
- Bonsi, S. K. (2007). Doctor-Patient relationship and professional dominance in contemporary society. *The Oguaa Journal of Social Science*, 4 (2), 57-68.
- Boahen, A. A. (2000). *Ghana: Evolution and Change in the 19th and 20th centuries*. Accra: Sankofa Educational Press.
- Brokensha, D. (1966). *Social change at Larteh, Ghana*. Oxford: Clarendon Press.
- Buah, F. K. (1998). *A History of Ghana*. London: Macmillan Education Ltd.

- Chu, F-Y. & Wallis, M. (2007). Taiwanese nurses' attitudes towards and use of complementary and alternative medicine in nursing practice: A cross-sectional survey. *International Journal of Nursing Studies*, 44, 1371-1378.
- Cochrane, J. (1996). *An illustrated History of Medicine*. London: Tiger Books International.
- Cockerham, W. C. (1992). *Medical Sociology (5th edn.)*. New Jersey: Prentice Hall.
- Coe, R. M. (1970). *Sociology of Medicine*. New York: McGraw-Hill Book Company.
- Christian Health Association of Ghana (2006). *Annual report June 2005-May 2006*. Accra, Ghana: CHAG.
- Corbie-Smith, G., Thomas, S. B., Williams, M. V., & Moody-Ayers, S. (1999). Attitudes and beliefs of African Americans toward participation in medical research. *J Gen Intern Med*, 14, 537-546.
- Crittenden, K. S., & Norr, J. L. (1973). Student values and teacher evaluation: A problem in Person Perception. *Sociometry*, 36 (2), 143-151. Retrieved Jan.12, 2007, from <ftp://www.jstor.org/journals/asa.html>.
- Dubos, R. (1960). *Mirage of Health*. London: George Allen and Unwin.
- Ernst, E., Resch, K., & White, A. (1995). Complementary medicine: what physicians think of it: a meta-analysis. *Archives of Internal Medicine*, 155, 2405-2408.
- Essegbey, G. O. (2002). Modernizing traditional medicine: The challenges. *Biotech. Ghana*, 2 (1), 3-6.

- Essegbey, G. O. (n.d.) Ghana's national innovation system: Options for developing a biopharmaceutical capacity. Unpublished manuscript.
- Evans-Anfom, E. (1986). *Traditional medicine in Ghana: Practice, problems and prospects*. Accra: Academy of Arts and Sciences.
- Ewusi, K. (1989). *The equity and efficiency in the supply of health manpower in Ghana*. Tema: Ghana Publishing Corporation.
- Fleischer, T. C. (2004). Bachelors' degree in Herbal Medicine: Another innovation at KNUST. *Technocrat*, 2(1), 13-14.
- Fosu, G. B. (1981). Illness classification in rural Ghana: Framework and implications for health behaviour. *Soc. Sci. Med.*, 14, 471-482.
- Freimuth, V. S., Quinn, S. C., Thomas, S. B., Cole, G., Zook, E., & Duncan, T. (2001). African Americans' views on research and the Tuskegee syphilis study. *Soc. Sci. Med.*, 52, 797-808.
- Garbin, A. P. & Bates, F. L. (1961). Occupational prestige: An empirical study of its correlates. *Social Forces*, 40 (2), 131-136. Retrieved Jan.11, 2007, from <ftp://www.jstor.org/journals/asa.html>.
- Ghana, Republic of (1992). *Food and Drugs Law (P.N.D.C.L. 305)*. Accra: Government Printer.
- Ghana, Republic of (1996). *Ghana Health Service and Teaching Hospitals Act (Act, 525)*. Accra: Government Printer.
- Ghana, Republic of (2000). *Traditional Medicine Practice Council Act (Act, 575)*. Accra: Government Printer.
- Ghana Statistical Service (2002). *Ghana Population and Housing Census: Summary Report*. Accra: Ghana Statistical Service.

- Green, E. C. & Makhubu, L. (1984). Traditional healers in Swaziland: Toward improved cooperation between the traditional and modern health sectors. *Soc. Sci. Med.*, 18 (12), 1071-1079.
- Greenfield,S.M.,Brown,R.,Dawlatly,S.L.,Reynolds,J.A.,Roberts,S., &Dawlatly, R.J. (2006).Gender differences among medical students in Attitudes to learning about complementary and alternative medicine. *Complementary Therapies in medicine*, 14, 2007-212.
- Hinojosa, S. (2000). Vocational directives among Maya Bonesetters in two Guatemalan communities. Retrieved September 7, 2006, from <http://www.famsi.org/reports/99018/index.html>.
- Hyma, B. & Ramesh, A. (1994). Traditional Medicine: Its extent and potential for incorporation into modern national health systems. In D.R. Philips & Y.Verhasselt (Eds.), *Health and Development* (pp.65-82).London: Routledge.
- Imogie, A. O., Agwubike, E. O., & Aluko, K. (2002). Assessing the role Traditional Birth Attendants (T.B.A.s) [Electronic version]. *African Journal of Reproductive Health*, 6 (2), 94-100.
- Kumi,N.S. & Boh,C.K.(2004,November 6). Prof. Akosa's view challenged. *Ghanaian Times*,12225.

- Laing, E. (1995) Documentation and protection of Biodiversity, with comments on protecting the intellectual rights of the Traditional Medical Practitioner. In Osofo K.D.Quarm (Chair), *Traditional Medicine and Modern Healthcare: Partnerships for the future*. Symposium conducted in Accra on the policies on Traditional Medicine in Ghana.
- Lewith, G.T., Hyland, M., & Gray, S.F. (2001). Attitudes to and use of complementary medicine among physicians in the United Kingdom. *Complementary Therapies in Medicine*, 9, 167-172.
- Lord, G.C. (1997). *Social Psychology*. New York: Harcourt Brace College Publishers.
- Maheady, L. & Maitland, G. E. (1982). Assessing social perception abilities in learning disabled students. *Learning Disability Quarterly*, 5 (4), 363-370. Retrieved Jan.12,2007 from <ftp://www.jstor.org/journal/cld.html>.
- Ministry of Health (2003). *Code of ethics and standards of practice for Traditional Medicine Practitioners in Ghana*. Accra: MoH Publication.
- Ministry of Health (2004). Ghana essential medicines list (5th edn.). Accra: MoH Publication.
- Ministry of Health (2004). *Ghana national drug policy (2nd edn.)*. Accra: MoH Publication.
- Ministry of Health (2005). *A national strategic plan for traditional and alternative medicine development in Ghana (2005-2009)*. Accra: MoH Publication.

- Ministry of Health (2007). *Service availability mapping*. Accra: MoH Publication.
- Nchinda, T.C. (1976). Traditional and western medicine in Africa: Collaboration or competition? *Tropical Doctor?* 4,133-135.
- New Encyclopaedia Britannica (2003). Divination. London: Encyclopaedia Britannica.
- Nukunya, G. K, (1969). Afa divination in Anlo: A preliminary report. *Research Review*, 5 (2), 9-26.
- Nyarko, A. K. & Asiedu-Gyekye, I. J. (2005). Safety testing. In A. K. Nyarko, I. J. Asiedu & Sittie, A. A. (Eds.), *A manual of harmonized procedures for assessing the safety, efficacy and quality of plant medicines in Ghana*. (pp.3-36). Accra: Ministry of Health, Ghana.
- Oyeneye, O.Y. (1984). Mobilizing indigenous resources for primary healthcare in Nigeria: A note on the place of traditional medicine. *Soc. Sci & Med.*, 20(1), 67-69.
- Opoku, K. A. (1970). Letters to a spiritual father. *Research Review*, 7 (1), 15-32.
- Opong, C. (1 973). *Growing up in Dagbon*. Tema: Ghana Publishing Corporation.
- Owusu,S.K.(1996).*Man, microbes and machines: The ultimate partnership*. Accra: Ghana Universities Press.
- Pearce, T. O. (1982). Integrating western orthodox and indigenous medicine: Professional interests and attitudes among University–Trained Physicians. *Soc.Sci. Med.*, 16, 1611-1617.

- Pirotta, M. V., Cohen, M. M., Kotsirilos, and V. & Farish, S. J. (2000).
 Complementary therapies: have they become accepted in General Practice
 (Electronic version). *M. J. A.* 175,105-109. Retrieved July 7, 2004,
 from <http://www.mja.com.au/public/issues/pirotta>.
- Peltzer, K. (199). Faith healing for mental and social disorders in the
 Northern Province (South Africa) [Electronic version]. *Journal of Religion
 in Africa*, 29 (3) 387-402. Retrieved July 13, 2007,
 from <ftp://www.jstor.org/journals/bap.html>.
- Rhode, J.M., Patel, D.A., Sen, A., Schimp, V.L., Johnston, C.M., & Liu, J.R.
 (2008). Perception and use of complementary and alternative medicine
 among gynecologic oncology care providers. *International Journal
 of Gynecology and Obstetrics*, 103,111-115.
- Sackey, B. M. (1999). Women and health seeking behaviour in religious contexts:
 Reproductive and ante-natal care in Ghanaian religious movements, a
 case study of the Twelve Apostles church. *Research Review (NS)*, 15
 (2) 65-91.
- Sackey, B. (2002). Faith healing and women's reproductive health.
Research Review (NS), 18 (1) 5-11.
- Samuels, N., Zisk-Rony, R. Y., Singer, S.R., Dulitzky, M., Mankuta, D., Shuval, J. T.,
 and Oberbaum, M. (2010). Use of and attitudes toward complementary
 and alternative medicine among nurse-midwives in Israel. *American
 Journal of Obstetrics & Gynecology*, 203, 20-26.
- Sarpong, K. (2008). Tertiary level education and training for Herbal Medicine
 Practitioners. *The New Legon Observer*, 2 (15), 16-18.

- Senah, K. (1996). Integrated health care delivery: The case of the Nazareth healing complex. *FASS Bulletin*, **1** (1), 41-48.
- Senah, K. (1997). Traditional and modern health care practices. In F.Agbodeka (Ed.), *A Handbook of Eweland: The Ewes of southeastern Ghana*. Accra: Woeli Publishing Services.
- Senah, K. A. (1997). *Money be man: The popularity of medicines in a rural Ghanaian community*. Amsterdam: Het Spinhuis.
- Senah, K., Akor, S., & Mensah, E. N. (2001). *A baseline study into traditional medicine practice in Ghana*. Accra: MOH/DANIDA.
- Senah, K. (2004). In the mighty name of Jesus: Faith healing and health-seeking behaviour in Ghana. *Legon Journal of Sociology*, *1* (1), 59-70.
- Sittie, A. A. (2008). Renaissance of Herbal Medicine and Safety Concerns. *The New Legon Observer*, *2* (12) 32-36.
- Sittie, A. S. (2005). Quality assessment. In A.K. Nyarko, I.J.Asiedu-Gyekye & A.A. Sittie (Eds.), *A manual of harmonized procedures for assessing the safety, efficacy and quality of plant medicines in Ghana*. (pp.87-118). Accra: Ministry Health, Ghana.
- Shorofi, S.A. &Arbon, P. (2010).Nurses'knowledge, attitudes, and professional use of complementary and alternative medicine (CAM): A survey at five metropolitan hospitals in Adelaide. *Complementary Therapies in Clinical Practice*,*30*,1-6.
- Straub, L.A., & Henley, E. (2000). Complementary medicine in rural Illinois: provider views. *Rural Research Report*, *11*(8), 1-8.

- Triandis, H. C. (1971). *Attitude and attitude change*. New York: John Wiley & Sons, Inc.
- Tsey, K. (1997). Traditional medicine in contemporary Ghana: A public policy analysis. *Soc. Sci. Med.* 45 (7) pp.1065-1074.
- Twumasi, P. A. (1975). *Medical Systems in Ghana: A study in medical sociology*. Tema: Ghana Publishing Corporation.
- Twumasi, P.A.(1979). History of pluralistic medical systems: A sociological Analysis of the Ghanaian case. *A Journal of Opinion*, 9 (3), pp. 29-34.
- Twumasi, P.A. (1988). *Social foundations of the interplay between Traditional Modern medical systems*. Accra: Ghana Universities Press.
- Uzun, O. & Tan, M. (2004). Nursing students' opinions and knowledge about complementary and alternative medicine therapies. *Complementary Therapies in Nursing & Midwifery*, 10, 239-244.
- Wambabe, C. (2008). From plants to medicines: Research and development of NIPRISAN, a drug for the treatment of sickle cell illness. *The New Observer*, 2 (15) 199-22.
- World Health Organisation (1978) *The promotion and development of Traditional Medicine*. Technical Report Series 622. Geneva: WHO Publication.
- World Health Organisation (2002). *WHO Traditional Medicine Strategy: 2002- 2005*. Geneva: WHO Publication. Retrieved October 14, 2005, from <http://www.who.org/edm/trm.html>

World Health Organisation (2004) *General guidelines for methodologies on research and evaluation of Traditional Medicine*. Geneva: WHO Publication.

APPENDIX

University of Cape Coast

Faculty of Social Sciences

Department of Sociology and Anthropology

Survey Questionnaire

This study is being conducted to solicit information on the Attitudes and Perceptions of Scientific Medical Practitioners towards the integration of Traditional Medicine into the formal healthcare delivery system. Please, be assured that the information you provide would be treated with utmost confidentiality. Carefully read the questions and tick or provide the appropriate responses.

SECTION A

SOCIO-DEMOGRAPHIC BACKGROUND

1. Sex: **Please check one box only**
 - a) Male []
 - b) Female []
2. How old are you?
 - a) 25 – 35 [] b) 36 – 45 [] c) 46 – 55 []
 - d) 56 – 65 [] e) Above 65 []
3. Marital status
 - a) Single [] b) Married [] c) Separated []
 - d) Divorced [] e) Widowed []
4. Ethnic background
 - a) Ga/Adangbe [] b) Ewe [] c) Mole/Dagbon []
 - d) Guan [] e) Akan [] f) others, (specify).....

5. What religion do you practice?
- a) Christian Catholic Christian Protestant
 Presbyterian/Methodist/Anglican []
- c) Christian Pentecostal/Charismatic [] d) Islam []
- e) African Traditional Religion [] f) others, (specify).....
6. Which type of health facility do you work in?
- a) Ghana Health Service [] b) Private Clinic/Hospital []
- c) Others (specify).....
7. What is your official position in this health facility?
-
8. How long have you practised medicine?
-
9. Highest level of education attained:
- a) M.B. Ch.B. [] b) Others, (specify).....
10. Are you a General Practitioner or Specialist?
-
11. What is your area of specialization?
-
-

SECTION B

Acceptance of Traditional Medical Practice

12. How would you rate the efficacy of Traditional Medicine(TM)?

Very good [] Good []
Fair [] Poor [] Very good []

Give reasons for your answer.

.....
.....
.....

13. How would rate the safety levels of Traditional medicine?

Very good [] Good []
Fair [] Poor [] Very good []

14. How would you rate the quality of traditional Medicine?

Very good [] Good [] Very good []

15. Do you feel that Traditional Medical Practitioners (TMPs) and Scientific Medical Practitioners should work together as a team?

a) Yes [] b) No []

Give reasons for your answer.

.....
.....
.....

16. How would you rate the health delivery services provided by TMPs in rural Ghana?

- a) Very good []
- b) Good []
- c) Fair []
- d) Poor []
- e) Very poor []

17. What do you think are the training needs of TMPs in Ghana?

.....
.....

18. What training would you like TMPs to have to deal with minor illnesses in the rural areas?

.....
.....
.....

19. What type of ailments would you recommend that TMPs manage and treat?

- a).....
- b).....
- c).....
- d).....
- e)

SECTION C

Collaboration between Scientific medical Practitioners and Traditional

Medical Practitioners (TMPs)

20. Do TMPs and SMPs work together in hospitals or clinics in Ghana?

Yes []

No []

21. If no, would you work along side TMPs in the same clinic or hospital in Ghana?

Yes []

No []

Give reasons for your answer.

.....
.....
.....

22. Do you personally use ideas and methods from TM?

Yes []

No []

If yes, what are they?

.....
.....
.....

23. How often do you refer cases to TMPs?

a) Never [] b) rarely [] c) often [] d) very often []

SECTION D

**The Practice of Traditional Medicine in Healthcare Delivery System
in Ghana**

29. How important is the TMP in the healthcare delivery system in Ghana?

- a) Not important [] b) Fairly important []
c) Important [] d) very important []

30. Please assign reasons for your answer.

.....
.....
.....

31. What are the advantages of Traditional Medicine in the healthcare delivery system in Ghana?

.....
.....
.....

32. What are the weaknesses of Traditional Medicine in the healthcare delivery system in Ghana?

.....
.....
.....

33. What would you suggest to be done to address the weaknesses of traditional medical practice?

.....
.....

34. Are you aware that the College of Pharmacy of the Kwame Nkrumah University of Science and Technology (KNUST) is offering a Bachelor of Science (B.Sc.) programme in Herbal Medicine?

Yes []

No []

35. If yes, are you satisfied with this programme?

Very satisfied []

Satisfied []

Not satisfied []

Indifferent []

36. Where should the graduates of the KNUST Herbal Medicine programme be placed within the formal healthcare sector? Should they be at par with?

Doctors []

Medical Assistants []

Nurses []

Pharmacists []