



Education

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ASSESSING HERBAL MEDICAL PRACTITIONERS IN PROFESSIONAL QUALIFYING EXAMINATION IN GHANA, A MODEL

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Abstract

About 70% of Ghanaians depend on Alternative health practice for their primary health care needs. Hence, there is the need to streamline and regulate these practices. Graduates from the Faculty of Pharmacy and Pharmaceutical Sciences, Kwame Nkrumah University of Science and Technology (K.N.U.S.T), Kumasi-Ghana were assessed by the Professional Qualifying Examination Board of the Traditional Medicine Practice Council (TMPC), Ghana, after two years of internship training. A model of assessment took into consideration, the scope of the university training, internship and the primary health care needs of the society.

Key words: Practitioner, Model, Professional Qualifying Exams, Herbal Medicine

Introduction

Apart from the indigenous traditional medicine practices, whose apprentices understudy by mentorship, there has been an increase in the establishment of schools for the training of alternative medicine - herbal medicine, homeopathy and other health care paradigms. Since seventy (70%) of Ghanaians depend on alternative health care practices (GHP, 2007) for their primary health care needs, there is the need to streamline and regulate these practices.

The philosophy behind the establishment of the Department of Herbal Medicine at the Faculty of Pharmacy and Pharmaceutical Sciences, K.N.U.S.T, Kumasi-Ghana was to produce a crop of Herbal Medicine Practitioners who would have a formal knowledge of medicinal plants and identification and who could apply these scientifically-harnessed herbal medicines to disease processes diagnosed from the conceptual view point as in allopathic medicine. This involves a well structured course (Table 1).

The first year of internship involves that the Herbal Medical Practitioners register with an indigenous herbal practitioner to understudy the methods of practice, and methods of herbal preparation.

During the second year, the Herbal Medical Practitioners go through a rotation programme at the Centre for Scientific Research into Plant Medicine (CSRPM), Mampong-Akuapem, Ghana to further strengthen their basics of the theoretical framework taught at school and the practical application. This offers the interns the opportunity to interact with patients on a health personnel-patient basis under the supervision of medical officers with background in plant medicine to familiarise themselves with the common medical conditions often presented. On the basis of equipping them with good management of patients thorough history taking, physical examination, laboratory investigations and quality of herbal medicine production, and its application, the interns at the CSRPM are supervised through the various Departments and undergo various activities (Table 1).

The next important arena of internship is to identify patients at risk for prompt referral. Interns go through rotations at an allopathic hospital to identify emergency cases, be it either medical or surgical, under the supervision of allopathic specialists and general medical practitioners. They are taught of writing referral of clarity to an allopathic practitioner for prompt and expert management when the need arises.

The need to apply the plant knowledge gained from theory or folkloric usage is emphasized in their management of patients. Good monitoring techniques of patients are prioritised to enable documentation of any adverse drug reaction and/or secondary benefits patients may gain from the herbal medicines.

The objectives of the professional qualifying examination (PQE) are therefore to evaluate:

- Their knowledge of medicinal plants in the West African sub region.
- Their ability to apply herbal materials especially common ones of the West African sub-region for the management of the first top ten diseases in Ghana and other diseases.
- Their research skills in evaluating herbal medicines for human consumption.
- Their knowledge on standard operating procedures (SOP) and quality control of herbal products preparation.
- Their knowledge of the laws and ethics of the Traditional Medicine Practice Council.
- Ability to take history and examine patients.
- Ability to recognise patients at risk for prompt referral.
- Ability to manage some of the chronic diseases.
- Non- Pharmacological management of diseases.

Methodology

This was a two-day examination; a theoretical section on day one and a clinical section comprising long cases' presentation and oral conference on day two. The theoretical paper consisted of a three hour paper on multiple choice questions and written essays. The multiple choice questions (MCQ) touched on candidates ability to understand the philosophy behind taking very good history and the ability to recognise cases for prompt referral; emphasis on pharmacological management of diseases using herbal preparations and non-pharmacological treatments. Candidates were also expected to be familiar with the top ten disease conditions and appropriate corresponding laboratory tests that could be requested. Candidates were also assessed on standard operating procedures (SOP) and quality control of herbal products preparation as well as laws and ethics of the Traditional Medicine Practice Council.

The essays were in two parts. Part (a) touched on clinical presentation of some severe medical conditions such as severe hypertension, diabetes and first aid treatment where necessary prior to referral and Part (b) tested candidates' aptitude on clinical research on herbal products.

The practical section consisted of long cases and the viva. With respect to the long cases, candidates were examined on their aptitude in taking history, performing physical examination and arriving at a diagnosis within a stipulated time. Within this same time, candidates were also expected to plan for proper management of their cases. Candidates during their presentation were asked to demonstrate their clinical skills in examining patients. Plan of management of the diagnosis arrived at by the candidates involved pharmacological (Herbal application, mode of preparation, dosage and referral if necessary) and non-pharmacological methods of management. For the viva, marks were awarded for candidates' appearance, ability to express themselves; and demonstration of general knowledge. They were also given a chance to clarify issues which the examiners found as problematic in their theoretical and clinical answers. A candidate who did not score at least 50% of the long case clinical work was considered failed irrespective of how well he or she performed in the theoretical work.

Results and Discussion

So far three batches of Herbal Medical Practitioners have been examined and certified by the TMPC as Herbal Medical Practitioners. As a new model of assessment, there was bound to be review of the examination structure. It was proposed in the post-examination reviews that during the period of internship, interns would carry a log book to record the diseases encountered. The log book would also propose the kind of management undertaken for that kind of disease, or the kind of herbs used and the mode of preparation. A clear documentation of follow-up was to be done. The log book would be signed by their supervisor(s). This would form part of the examination score.

It was also noted that, candidates had difficulty in recalling common medicinal plants for the treatment of the specific diagnosis. It was suggested that there should be a lot of input from the university training up through to the period of internship about these plants and their preparations. In this case, the special laboratory that is being created at the Herbal Medicine Unit, KNUST, should be accelerated to introduce students to the industrial preparation of the various herbal dosage forms for specific diseases.

So far, of those qualified, some are in private practice, some employed in the Clinical Department of the CSRPM as Clinical Researchers whilst others are into herbal research at the Noguchi Memorial Institute of Medical Research, Ghana. Some are still waiting for the establishment of the Ministry of Health (MOH) Herbal Clinics. This model of assessment for the graduate Herbal Medical Practitioners will be one of the models of assessment of the Traditional Medicine Practice in Ghana.

Table 1: Outline of course content and internship programme

HERBAL MEDICINE PROGRAMME AT KNUST		INTERNSHIP PROGRAMME AT CSRPM
<p>Course Title YEAR 1 SEMESTER ONE Introduction to Herbal Medicine Botany of Medicinal Plants Plant Morphology Laboratory Basic Chemistry Basic Chemistry Laboratory Microbiology Microbiology Lab Communication Skills Post SSS Maths Informatics (Computing)</p> <p>YEAR 1 SEMESTER TWO Human Physiology Human Anatomy Biochemistry Biochemistry Laboratory Basic Organic Chemistry Communication Skills II</p> <p>YEAR 2 SEMESTER ONE Human Physiology Human Anatomy Gross Pathology Dispensing Theory Dispensing Laboratory Pharmacology Statistics Literature of English</p> <p>YEAR 2 SEMESTER TWO Pharmacology Pharmacology Laboratory Organic Chemistry II Phytochemistry Phytochemistry Lab Statistics Literature of English</p>	<p>Course Title YEAR 3 SEMESTER ONE Nutrition, Health foods and Health Diagnostic Skills I Clinical Training I Phytotherapy I Crude Drug Production and Evaluation Crude Drug Evaluation Lab</p> <p>YEAR 3 SEMESTER TWO Poisons of Natural Origin Research Methods Clinical Training II Phytotherapy II Complementary Medicine Chemical Pathology</p> <p>YEAR 4 SEMESTER ONE Diagnostic Skills II Herbal Medicine Policy, Laws & Reg. Clinical Training III Chemical Pathology Entrepreneurial Management I Phytotherapy III Project</p> <p>YEAR 4 SEMESTER TWO Professional Ethics Entrepreneurial Management II Clinical Training IV Public Health Phytotherapy IV Project Mental Health Pregnancy</p>	<p>Activities MICROBIOLOGY DEPT Acquiring of skills in aseptic techniques Taking of samples for culture and sensitivity Slide preparation Enumeration of micro-organisms i.e. viable count and microbial load Preparation of various media Microbial assays on herbal products</p> <p>DISPENSARY Acquire good dispensing techniques Attend to patients enquiries about ADR, dosage. Learn proper storage methods of herbal products</p> <p>CLINICAL LABORATORY Blood sample collection via venepuncture Interpretation of haematological indices, biochemical indices Acquire skills in the procedures involved in the various laboratory protocols Acquisition of knowledge on use of the various laboratory equipment</p> <p>HERBAL PRODUCTION Undergo field trips for identification of various plants and collection. Learn herbal raw material storage Involve in the preparation of various dosage forms Learn the various standards</p> <p>PHARMACOLOGY Participation in the toxicity studies and their implication</p> <p>PHYTOCHEMISTRY Participation in the phytochemical screening of herbal products</p> <p>CLINIC Assessment of patients through history taking and physical examination Management of patients by application of herbal medica (pharmacological) and education(non pharmacologic)</p>

References

1. (GHP, 2007), Ghana Herbal Pharmacopoeia (2007), Science and Technology Policy Research Institute (STEPRI) 2nd edition, pp xii