

## SOUTHERN AFRICAN FAIMER REGIONAL INSTITUTE POSTER DAY, HELD IN CAPE TOWN ON 8 MARCH 2010

### NEEDS ASSESSMENT FOR THE INTRODUCTION OF INTERCALATED DEGREES AT THE COLLEGE OF MEDICINE OF THE UNIVERSITY OF MALAWI

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#### Context and setting

Malawi has a critical shortage of medical graduates, researchers and academics. The College Of Medicine, together with affiliated research units which include Malawi-Liverpool-Wellcome Trust, Johns Hopkins University, the Malaria Alert Centre and Blantyre Malaria Project-Michigan University, has the potential to offer intercalated degrees, such as Bachelor of Science Honours, by adding an extra year during the undergraduate medical programme.

#### Why the idea was necessary

The main objectives were to assess medical students' interest in undertaking intercalated degrees and the capacity of the College of Medicine and its affiliated research units to offer the degrees, with a secondary aim of encouraging careers in health sciences education and research.

#### What was done

An electronic survey evaluating student and faculty views, both qualitatively and quantitatively, was distributed between July and September 2009 to all undergraduate medical students and the Medical Faculty of the College of Medicine and affiliated research units. Ethics approval was obtained for this survey.

#### Evaluation of results and impact

Seventy-seven of 250 students (31%) and 46 of 100 faculty members (46%) responded. The proportions of students in relation to year of study for years 1 - 5 were 25%, 22%, 16%, 29% and 8%, respectively.

Among the student respondents 58% knew about intercalated degrees prior to the survey. Eighty-five per cent were in favour of introducing intercalated degrees, believing it would encourage pursuit of careers in medical academia and research; 67% would consider doing a degree and 34% (26 students) were very strongly in agreement. The choice study areas were histopathology (33%), anatomy (21%), physiology (14%) and microbiology (14%). Other perceived benefits included acquiring research skills and widened career and job opportunities. Two students believed the degree would cause an unnecessary delay in graduating from medical school.

Of the faculty respondents 64% knew about intercalated degrees prior to the survey. Eighty-five per cent agreed that the College of Medicine should introduce the degrees, believing this would encourage medical graduates to pursue careers in medical academia and research, enhance research and human resource capacity as well as collaboration between institutions, resulting in better utilisation of existing facilities. Thirty per cent and 50% felt that they had adequate non-human and human resources, respectively, to offer degrees. The College and the research units combined felt they could offer 24 intercalated degrees per year in

microbiology, statistics and epidemiology, histopathology, immunology, anatomy, physiology, haematology, biochemistry, management and pharmacology.

Twenty-six students were very interested in doing an intercalated degree, matching well with the 24 slots that can be offered per year. Students' interest and departmental capacity corresponded well for microbiology and statistics/epidemiology, but a very strong interest in histopathology resulted in a mismatch with the capacity of the department to accommodate the students.

There is a strong enthusiasm among students and faculty for intercalated degrees. Although limited human and non-human resources are seen as a major challenge, the faculty is keen to start the programmes, and plans are underway to develop curricula.

### CAPACITY OF NURSING TRAINING INSTITUTIONS TO IMPLEMENT COMPREHENSIVE NURSING CURRICULA IN UGANDA

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#### Context and setting

In Uganda there are 32 nursing training institutions that implemented single non-comprehensive nursing programmes (general nursing/midwifery/mental health). Because of increasing pressure to achieve the Millennium Development Goals (MDGs), a government policy was passed to train comprehensive nurses instead of single-specialty nurses. The capacity in terms of tutors, management skills, accommodation, classroom space and other resources required for the two strategies is not the same. Comprehensive nursing training demands training in the four main domains of nursing (midwifery, community health, mental health and general nursing). It is therefore evident that comprehensive training will require more resources than the monovalent training.

#### Why the idea was necessary

Determining the capacity of nursing training institutions in Uganda is a very important first step in managing health training institutions. The findings of the study provided useful information for the Ministry of Education, Business, Technical Vocational Training (BTVET) Department, Ministry of Health and other policy makers to use in the process of planning, supervision and evaluation of comprehensive nursing programmes. This same knowledge is also being used by health tutors in the planning, implementation and evaluation of nursing programmes and for accreditation purposes.

#### What was done

The data were collected using pre-tested structured and unstructured questionnaires. The researcher and trained research assistant distributed the questionnaire to the principals of the 7 schools. In turn the principals distributed the questionnaires to all the teaching staff, at least 2 governing council members and 2 guild council members. Using a structured observational checklist the researcher determined the availability, presence and suitability of ward allocation, vision mission, organogram, work plans, certificates of merits, presence of teaching staff, infrastructure vehicles,

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and evidence of recent text books in the library. Student enrolment and success rates as recorded in the last 2 years were also registered. I also reviewed the relevant records in relation to the above information.

## Results and impact

The findings of the study indicate that the human resources, especially the teaching staff, were qualified for the job but inadequate in numbers compared with the student population. The average tutor:student ratio was 1:76 and 1:40 in public and private not-for-profit nursing institutions, respectively (set standards in Uganda is 1:20). The number of textbooks in libraries did not meet the set ratio standards (Directorate of Education Standards in Uganda) of 1 textbook to 4 learners.

This was an indication of resource constraint, especially in the areas of tutors, teaching and learning materials.

These results are useful for improvement. The results have been communicated to concerned stakeholders (Ministry of Education and Nursing Council). The Tutors College's curriculum is under review, processes are underway for equipping schools with the necessary teaching and learning material and even distribution of tutors according to their skills is being emphasised.

## CAN VIDEO-BASED MATERIAL VALIDATE LEARNING EXPERIENCES IN POSTGRADUATE FORENSIC PATHOLOGY TRAINING?

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## Context and setting

Along with the move to establishing the Colleges of Medicine of South Africa as the unitary specialist exit examination body for all postgraduate students, has come the requirement by the College of Forensic Pathologists for all students to submit logbooks of practical work and a portfolio of learning providing details of practical learning experiences in topics such as anthropology, odontology, blood splatter analysis, firearms/ballistics/tool marks, and autopsy technique. No specifications exist for the

format of the logbook and portfolio, but these are currently presented in a paper-based format.

## Why the idea was necessary

In a practically orientated discipline such as forensic pathology (autopsy techniques, death scene investigation, etc.), the objectivity and validity of a paper-based logbook and portfolio system are questionable. This study was designed to determine the feasibility of developing a student-generated, video-based portfolio for the assessment of practical skills in forensic pathology.

## What was done?

Questionnaires were sent to all actively practising consultants and registrars in forensic pathology in South Africa. Two themes were addressed in the questionnaire: (i) the characteristics of individual postgraduate education programmes with a focus on assessment and the use of a portfolio; and (ii) the skill of individuals to use technology to produce student-generated videos as part of the portfolio compilation.

## Evaluation of results and impact

- Most forensic pathologists in South Africa (83%) play an active role in undergraduate and postgraduate education. This includes traditional 'classroom' training and practical instruction.
- While 65% of consultants indicated that a paper-based portfolio was an adequate way of assessing the practical conduct of candidates, only 42% of registrars agreed with this opinion. Many respondents (62%) viewed the concept of a video-based portfolio with cautious optimism, and were supportive of integrating video material into the portfolio.
- Wide-scale implementation of a video-based system may be constrained by limited technical expertise on the part of consultant staff; only 29% of consultants felt able to advise registrars on the development of video material suitable for inclusion in a portfolio. However, 64% of registrars indicated that they would be able to compile video clips as would be required for portfolio purposes.
- This study lays the groundwork for the development and piloting of an audiovisual-based portfolio system in forensic pathology.