

Rumbles in the Medical Schools?

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I note disquiet among those who teach in the regions medical schools. Two recent articles in this journal report their unresponsiveness to the needs of the students and, even more importantly, to the needs of the populace who look towards them to provide the medical services the region sorely needs. The issue of this journal dated December 2004 has articles on the subject by Kakande¹ and Kigonya² who both railed against declining educational standards. Kigonya noted 'a decline in the standards of medical education in Uganda', and that 'a significant number of house officers who are deficient in basic clinical skills, of taking a focused history and making a physical examination'; Kakande¹ suggested that the region's medical schools had to give renewed emphasis to 'teaching and patient care' and that the teacher 'must return to the bedside for teaching medical students'. They both asserted, quite properly, that the primary role of the region's medical schools, is to produce doctors competent in dealing with the common pathology of the region and that this was being threatened by the unresponsive bureaucracy of the universities. They criticized two developments which had significantly contributed to the decline; the growing tendency of the medical schools to appoint and give promotion and tenure to those clinical teachers who were research-orientated rather than those committed to teaching and, secondly, their tendency to impose new curricula, imported usually from the West, which lacked relevance to the countries' needs.

I hope that I, a retired surgeon, who has worked in Uganda and has known its medical scene and that of its neighbouring countries for nearly 40 years, may contribute to the debate that should arise from these articles.

It is saddening to read these criticisms of the region's metropolitan medical schools but I am forced to admit that they are appropriate. All of them the first-formed medical schools, all of them lodged in capital cities. The deterioration of all is evident but the causes of their decline rests in more factors, which I will return to later, than the two quoted in the articles.

The writers are correct in saying that curricular change should arise from within the school though those who guide health policy must have a voice. All who contribute to the debate must accept that the goal of the medical school must be to provide doctors knowledgeable of the pathology of the region and competent in the clinical techniques required for diagnosis and treatment. A medical school administration responsive to the needs of its country will adapt its curriculum to those needs as articulated by leaders in health policy and by its clinical teachers. I have usually been impressed by the knowledge possessed by recent medical graduates but less commonly by his/her clinical skills of diagnosis and clinical investigation. It is the people of the rural areas whose medical needs are greatest and it is on those areas that

the policy makers must concentrate. Therefore it is to these regions that the young medical officer must be sent and for his/her sake and for the sake of patients there he/she must have the skills to diagnose, investigate by simple means, and treat the common disorders. The ability to test urine and blood for sugar, to estimate the haemoglobin, to perform a lumbar puncture, wound toilet or drain an abscess, for example, is essential.

Skills and techniques cannot be learned from books. True enough, books describe the methods to employ but the help of experienced clinical teachers are needed to translate and transmit the skills. They are learned from, and practised under the eye of empathetic clinical teachers at the bedside of patients. Here the student is taught how and when to use them. Diagnosis rests on the careful structured use of history taking and examination but so varied and subtle are the presentations of disease that only repeated and supervised practice will produce these skills. There is no substitute for clinical instruction at the bedside. And so I agree with Kakande's contention that medical schools must recognise that its *clinical teachers must be, first and foremost, clinicians with three qualities above all others; a love of teaching, accessibility to students, and a considerable clinical experience*. I say this not to exclude the value of research but merely to put research, as it were, in its place subordinate to that of teaching.

The best of my teachers, Sir Ian MacAdam, performed little formal research and wrote very few papers but he led a surgical department that was second to none in its emphasis on teaching, most of it consultants – led but that department, under his leadership was also very productive of the best of clinical research in, for example, Burkitt's lymphoma, sigmoid volvulus, and osteomyelitis whilst at the same time producing the best and most motivated young doctors I have ever seen. Teaching and research are not incompatible; enthusiastic teachers will also research but if research and numbers of publications are made the paramount markers for university clinical staff then teaching may suffer.

As I wrote earlier I do believe that the malaise of the metropolitan medical schools lies in other deeply entrenched causes. Loeffler³ has written eloquently of the societal consequences that have developed in the Africa's post-colonial period, in which mimicry of the West have endowed the continent's elite, the professions and the institutions with pretensions that have disengaged them from the burdens and concerns of their fellow citizens and he attributes some of the problems of the region's older medical schools to these. I share his view that these medical schools have become too big. These bureaucratic structures, all of them housed in the capital city in over large, over specialised hospitals are failing to produce what their country needs – a rural medical service. A visit to any of the poorly staffed and poorly resourced health clinics or hospitals in the rural areas is proof of this.

Fortunately the region's health policy makers are recognising this and in most countries of the region the ministries of Education and Health have combined to establish new medical schools in rural areas far from the capital e.g. Uganda, Ethiopia, Mozambique, Kenya, Tanzania. That in Beira was established to address the medical needs of the northern region of Mozambique and many kilometres distant from Maputo, a region that had fewer than 10 Mozambiquan doctors. Its undergraduates are all from the region. In every country the formation of these new medical schools had been resisted by its established university.

I have visited several of these new medical schools and without exception have found within them a vitality and enthusiasm so often

lacking in their elders. They have little of the grandeur of the capital's medical school or teaching hospital being usually based on a regional hospital with adjacent small administrative and preclinical departments. Their students are, in large part, usually bonded by family ties and/or schooling to their area and it is likely that the majority will graduate to work in the rural clinics or hospitals of the region.

I have noted several important distinctions between these new schools and the medical schools of the metropolis which offer the hope that the new schools will avoid the malaise referred to by Kakande¹ and Kigonya².

The new medical schools:

- Have smaller class sizes and clinical tuition is conducted in smaller groups of students. This allows more substantial and closer relationships to develop between student and teacher. The students frequently 'shadow' the MO or consultant in the ward, outpatients, or theatre permitting more opportunities to observe, learn and practice techniques in a clinical setting
 - Have a curriculum developed by the school which aims to meet the needs of the local community
 - Have, in large part, a consultant-led clinical service which gives more opportunities for the students to be taught, whether on the ward, in theatre or in outpatients, by a senior clinician.
 - Are general hospitals and possess few specialised services which permits the student an unselected view of the common pathology of the region
 - Are surrounded by few of the 'diversions' of the city which may impart negatively on student teaching; the few opportunities for private practice result in more accessibility to senior clinical teachers; the uncongested provincial town permits easier travel between home and hospital and does not hinder contact between student and teacher.

Finally, these new medical schools have an enthusiastic teaching staff, more committed to student teaching and to the production of good doctors. Their newness and smallness both contribute to their desire to demonstrate that

they can produce results equal to, if not better, than their elder predecessors in the big city.

As for the metropolitan universities of which Kakande and Kigonya wrote about, well I hope that they will recognise that the challenges presented by the new schools rest on more than freedom from an autocratic bureaucracy. The new schools possess a vitality and enthusiasm which has been lost over the past few years by their over-large metropolitan cousins, appropriateness for teaching that an over-specialised hospital may lack and an effectiveness that follows from their smaller class sizes. The metropolitan medical schools need to adapt; rather than expanding their student numbers they must reduce them; their curricula must be responsive to the country's needs and they need to re-emphasise that they exist to provide appropriately trained doctors who are willing and able to work in rural areas. The metropolitan schools must give much more prominence to their links with rural health clinics and general hospitals. They should illustrate the importance of rural medicine by promoting clinical and social research into the problems of its delivery.

The perceived deficiency in the graduate product of the metropolitan schools is not knowledge but clinical skills; the curriculum must contain a list of clinical skills which they will teach and test competency in before graduation. This list will only be well-taught if consultant ward teaching rather than occurring during a once-weekly, overcrowded business ward round of 60 patients is undertaken in the form of bedside tuition focussed on individual

cases; the resource presented by teaching in outpatients clinic is squandered if only delivered by an SHO – the consultant should be present there.

Forty years ago in Mulago there was a consultant-led ward round on the emergency ward each evening at which the surgical firm students' presence was mandatory. Patients' plans were defined and student bedside teaching occurred; there was no better introduction to the diagnosis, care and treatment of the acute surgical patient. No amount of Grand Rounds, lectures, internet searches or essays are substitutes for bedside teaching.

I am hopeful that adaptation will occur for it will be driven by a healthy competitiveness between the new and the old. At present this competitiveness is driving the new schools to work harder and better to prove their worth. The gauntlet, figuratively speaking, has been thrown down by them but now is the time for the established schools to respond and they have the resources to do so. **Only time will tell whether they have the will.**

References

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3. I.J.P Loeffler. Surgery in the post-colonial world. *East Centr Afr J Surg.*2002; 7 (1): 53-58.