

Exploring medical curriculum leadership and management training: Perspectives of doctors and medical educators in Botswana

A Turner,^{1*} MB ChB, MMed PHM, FCPHM, Dip HIV Man, PhD; D Prozesky,² BSc, MB ChB, MCommH, PhD; M B Kebaetse,² BEd, MS, PhD; J Wolvaardt,¹ BCur, MPH, PGCHE, PhD

¹ School of Health Systems and Public Health, Faculty of Health Sciences, University of Pretoria, South Africa

² Department of Medical Education, Faculty of Medicine, University of Botswana, Gaborone, Botswana

Corresponding author: A Turner (astrid.turner@up.ac.za)

Background. The University of Botswana Faculty of Medicine (UB FOM) is the only medical school in Botswana, and was opened to address shortages that other workforce strategies were not achieving at a sufficient rate. The UB FOM programme involves early patient contact at all levels of healthcare. Newly-graduated doctors are expected to perform managerial responsibilities, a role which few medical curricula include formal training for.

Objectives. To explore the perceptions of graduates and medical educators (MEs) on the leadership and management training in the medical curriculum in Botswana.

Methods. A non-theory driven qualitative study using thematic analysis was conducted. Twelve MEs and graduates from UB FOM were interviewed. Semi-structured interviews were conducted until data saturation was reached. Data were transcribed and analysed.

Results. Two themes were developed: *Starting small to be tall* and *Planting the seeds*. Theme 1 describes the explicit messages of being future managers and leaders unaccompanied by formal training. Theme 2 acknowledges the insufficient training and describes the call for scaffolded longitudinal leadership and management teaching, and enhanced interprofessional education.

Conclusion. Elements of leadership and management training are already included within the curriculum. The health system expectation that these graduates will immediately assume leadership and management responsibilities necessitates the strengthening of these aspects. The inclusion of critical content and further expansion of interprofessional education can be considered. The UB FOM is in a position to actualise its identified leadership and management competencies to serve the needs of its graduates and those in their care.

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In Africa, training medical students abroad and the construction of local medical schools are both used to address the shortage of doctors.^[1,2] The strategy of training doctors abroad alone did not address Botswana's doctor shortages at a sufficient rate. Therefore, the first medical school at the University of Botswana (UB) opened in 2009.^[3]

The UB Faculty of Medicine (UB FOM) adopted a five-year, two-phase Bachelor of Medicine and Bachelor of Surgery programme.^[3] So far, it has graduated over 400 doctors and 110 specialists. The UB FOM delivers a '...community-oriented, learner-centered, problem-based curriculum delivered throughout the teaching health system.'^[3] This structure has early patient contact at healthcare facilities, including rural exposure, with problem-based learning (PBL) positioned as a central tenet.

Studies have posited that more effective medical doctors have leadership and management capabilities but that the teaching thereof in the curriculum often remains inadequate.^[4,5] In 2021, the perceptions of graduates and medical educators (ME) on the roles of leadership and management, and other non-traditional topics in the curriculum, were explored in a doctoral study conducted at four medical schools in southern Africa, including the UB FOM.^[6]

This short report describes the perceptions of graduates and MEs on leadership and management training at UB, the most recently established participating university which continues to revise its curriculum. Table 1 outlines the current inclusion of leadership and management in the curriculum.

Objectives

To explore the perceptions of doctors and MEs on leadership and management training in the medical curriculum in Botswana.

Methods

A non-theory driven qualitative study using thematic analysis was conducted in 2021. Medical educators with insight into and responsibilities for medical curriculum development were purposively sampled i.e. module coordinators and academic staff in executive positions. A snowballing sampling strategy was used to invite registered medical graduates of UB FOM. Semi-structured online interviews were conducted by the principal investigator, a public health medical doctor with experience in health professions education. Interviews were stopped once data saturation was reached. Interviews were transcribed and data analysed using ATLAS.ti v 9.1.7.0 software. Thematic analysis of data was conducted.

Discussion among the researchers about the transferability of the findings, data saturation, peer-debriefing and procedural precision to support study findings (e.g. using an electronic logbook and memos of interviews and decisions taken during analysis) contributed towards the methodological congruence and confirmability of the findings.

Ethics approval was obtained from the University of Botswana Institutional Review Board (ref. no. UBR/RES/IRB/BIO/GRAD/218). Informed consent for participation and recording was obtained prior to the interviews.

Results

Twelve participants were interviewed; six were doctors who had graduated from UB FOM. Two themes were developed.

The first theme, *Starting small to be tall*, refers to the university's expectations that its graduates will be leaders and managers in the healthcare system of Botswana. This expectation is described in the current learning outcomes and as there is continuing work on the curriculum (to ensure compliance with the competency frameworks of the Botswana Health Professions Council, the Medical Board and accreditation standards), opportunities exist to refine or expand these outcomes.^[7-9] Examples of current learning outcomes include 'accept positions of leadership and carry out tasks required of such positions when appropriate' and that graduates will 'demonstrate leadership, health management and planning skills and [have the] ability to lead others to meet challenges effectively.'^[8,9]

Sub-theme 1.1: Voiced expectations of leadership and management

Participants reported that students were explicitly told that they would assume leadership roles within the health system: '*...it's a bit complicated in that what we drum into our students from day one of their time here is that, they are by virtue of the profession that they are going into, they are leaders. That's what we tell them. So they should look at themselves as leaders. They are going to be leaders in the community in which they are going to serving.*' [ME 3] and '*For instance, in Botswana, in the context of medical students, maybe doctors, a lot of times when they graduate from here and they're assigned to some remote place somewhere to work as doctors, when they get in there, they're expected to be leaders.*' [ME 5]

Sub-theme 1.2: High levels of leadership and managerial responsibility after graduation

The leadership and managerial expectations of doctors are immediate and evolving, even in the absence of formal training.^[5,6]

'...as an intern I was managing just the ward, as well as the nursing staff there. But now as a resident, I'm now at a point where even at national level, I attend meetings with different stakeholders, where I'm supposed to collaborate with them, work with them, as well as advocate for the community, as well as sort of be the leader with some of the junior people within those meetings...so you should be able to present those leadership skills...' [D 2]

In the absence of training, doctors have to either '*learn on the job*' [D 4] or pursue additional training, often at their own expense.

In Theme 2, *Planting the seeds*, participants acknowledged the insufficient training and recommended that scaffolded longitudinal leadership and management teaching – including enhanced interprofessional education – be considered.

Sub-theme 2.1: Sparse leadership and management training

The PBL curriculum facilitates the teaching of aspects of management content, i.e. skills-related to self-management and working with other healthcare workers. However, gaps in its emphasis and assessment were acknowledged: '*... But when it comes to leadership...this we try through our PBL curriculum... We don't necessarily evaluate it but...we have a first-year experience course, and we take time really talking to them about emotional intelligence, about group dynamics,...And also even about managing yourself...'* [ME 2] and '(Regarding management): *there's some, you know, it's limited but there's some attempt at teaching it. However, I think because it's not really embedded in problem-based learning cases, students just don't seem to really like concentrate on it, deem it to be important.*' [ME 5]

Initially, there were biennial changes to the UB FOM curriculum towards meeting national and global medical education standards. Therefore, while some participants could recall aspects of management that were taught in the curriculum, others did not: '*...so, yes, management was taught in terms of being a part of a team in the wards. So from third year to fifth year when we were doing clinical work, we'd be assigned to teams, and depending on your year of study, there were certain expectations.*' [D 5] and '*but during my years, they didn't formally teach, for example, leadership, or working with others. They packaged it in a different manner under the family medicine rotations in the undergraduate programme. And in terms of assessment, it wasn't formally done.*' [D 6]

Curricula often include content that is deemed a useful foundation for future professional roles. In the UB context, the leadership and managerial roles have already been identified in practice, and articulated in curricula competency frameworks. Therefore, these two competencies should be less obscure in the curriculum. A participant drew a comparison with the undergraduate research training: '*...just as much as research was well put out in our curriculum, I think both management and health economics also, just the basics at least,...So for those ones I think they really do need to be added and nurtured in the curriculum, to at least give people a foundation and a chance to learn more if they so want to.*' [D 4]

Sub-theme 2.2: Scaffolded longitudinal teaching and interprofessional education

Participants reported a preference for scaffolded teaching of leadership

Table 1: Leadership and management content in the medical curriculum

Year	Focus	Activities
1	<ul style="list-style-type: none"> Introduction to health and resource management The structures, organisation, management and financing of the health system and District Health Management Teams 	Plenary session Visits to different levels of healthcare system
2	<ul style="list-style-type: none"> The record as an audit, management and research tool National and international factors affecting control and management of HIV and AIDS Management of facility waiting lists Change management Development of interventions to address identified community health needs Audit of a problem in a primary care clinic 	Plenary session Plenary session Plenary session Plenary session Three-week assignment Small group work
4	<ul style="list-style-type: none"> Principles of health financing, leadership and management, human resource management 	Two-week module
5	<ul style="list-style-type: none"> Health problem identification and needs assessment 	Interact with key non-medical stakeholders

and management content following a longitudinal approach, even post-graduation: *'I think it should be incorporated, not just in the final year but throughout....So to still be a continuation from undergraduate level to internship level, and even to medical officer level.'* [D 1] and *'...I think some basic level of management should be built in the curriculum. And then after that, I think it should be mandated that they should do some bits of it after graduation. I think it should be part of continuous professional development.'* [ME 6]

At the time of the study, opportunities for interprofessional education that contribute toward leadership and management capabilities, were being explored. A participant suggested that *'I think the one thing that I would really eventually want to see is working with others who are not like them. That we start to infuse some interprofessional. Because that's what really happens at the bedside. There are other professions and learning how to work with them and understanding each other's roles from their training, and maybe...I think it's likely to happen when they actually practise.'* [ME 6]

Conclusion

The reality of the immediate leadership and managerial responsibilities that await UB medical graduates is a compelling reason for leadership and management training to be more prominent in the curriculum. The UB FOM can consider the scaffolding of critical content needed by their graduates, and expanding their interprofessional education learning opportunities to achieve this. Strengthened leadership and management training will ensure that the country's medical graduates will have the capabilities that they will require to navigate the health system.

Declaration. None.

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Conflicts of interest. MBK and DP participated in the main study as educators from UB FOM. After completion of data collection MBK and DP were invited to co-author the manuscript. Analysis of the data was done by AT and JW. MBK and DP did member checking of the findings.

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