Communicating Curriculum Reform to Students: Experience from the School of Medicine and Health Sciences, University of Papua New Guinea

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Abstract

Positive change is an important indicator in the progress of societies. Following the recommendations of the 1993 World Summit on Medical Education for producing medical doctors to take on the challenges of the 21st century, medical schools around the world have been restructuring and reforming their curriculum. Following international trends in medical education the traditional Bachelor of Medicine/Bachelor of Surgery (MBBS) program at the University of Papua New Guinea (UPNG) was restructured in 1998 to a problem based learning (PBL) curriculum. The reform was successfully implemented in all the undergraduate years in three years (1999-2001). An important factor that contributed to the successful implementation was the support of the staff and students. The communication of the reform to staff and students played a significant role to ensure this. This paper will discuss how this was achieved among students at UPNG.

Introduction

Change is an inevitable part of society and 'while there will be those who will welcome it, viewing change as progressive and probably long overdue, there will be the opponents, who believe that there is nothing wrong with the old system' (McLean 2003a). McLean adds that 'those entrenched in the old system may find it difficult to adapt, particularly if their power and authority are challenged'. Curriculum restructuring and reform in higher learning institutions are no exception and faculty staff and students might either welcome and embrace the change or resist the need to change.

Reform often involves adopting a new way of thinking with the introduction of new teaching practices. In accepting change, students and staff are probably no different. A major concern for medical students in a restructuring process is that they need to be 'marketable' both nationally and internationally and well educated to deliver an effective health care service. To successfully implement curriculum reform, both staff and students need to be convinced of the need for innovation, which might involve highlighting shortcomings of the old system.

Since the 1993 World Summit on Medical Education, curriculum restructuring and reform has been happening in medical schools around the world at an accelerated pace. The World Federation for Medical Education (WFME 2004) in its recommendations advocated that the 21st century doctor be 'redesigned in order to train practitioners to provide an efficient primary health care service,

communicate better with patients, be critical thinkers and life-long learners' (McLean 2003a). Further, they should have good working relationships characters to function well as members of a multidisciplinary team for the benefit of the community.

In Australia for example, seven new medical schools have been established, the first in 30 years (Lawson 2004), whose curriculum reflects WFME recommendations. For successfully implementing any reform McLean (2003b) clearly points out that 'considerable planning, advertising and convincing staff and students of the need for change' and highlighting the benefits of change are needed. A literature review by Bland et al. (2000) provides a detailed analysis of conditions that are necessary for successful curriculum reform. One of these is the importance of communication regarding the reform.

Communicating regularly to staff 'with updates of progress with examples of proposed teaching practices' is required to 'allow for objections to be aired, to invite participation and establish and promote investment in the reform process' (McLean 2003b). Involving staff and students in this communication process and communicating widely and effectively, especially if it is reciprocal will ensure that the faculty and students develop a sense of ownership in the reform process. Various methods can be employed in communicating curriculum reform to students including newsletters advertising the process, question and answer sessions, using the library to post regular updates on notice boards and through student representation on committees.

The author of this paper was the student representative in the undergraduate Curriculum Review Committee of the Faculty of Medicine in 1998 when UPNG was undergoing restructuring. Later he was a tutor in the newly introduced Problem Based Learning (PBL) curriculum between January 2003 and April 2005. This paper will discuss how curriculum reform was communicated to medical students at UPNG at that time.

History of undergraduate medical education at UPNG and the need for reform

In the 1950s Papua New Guineans were sent to the Fiji School of Medicine to be trained as doctors and graduated with a Diploma in Medicine and Surgery. In 1962 the Papuan Medical College was established in Port Moresby, training all health professionals, including doctors, nurses, x-ray and laboratory technicians Medical graduates received a Diploma in Medicine and Surgery. In 1965 with the establishment of the University of Papua New Guinea, the Papuan Medical College became the Faculty of Medicine. The first medical students graduated from the newly established Faculty of Medicine in 1973. The graduating class had four expatriates and one Papua New Guinean graduating with a Bachelor of Medicine and Bachelor of Surgery (MBBS) (Kevau, Vince & McPherson 2004).

A curriculum review committee initially raised concern about the need for curriculum reform in undergraduate medical education at UPNG in 1998 as

part of a general restructuring process. This committee articulated concerns that the traditional curriculum was focused on didactic teaching and there was a need for change. After examining international trends in medical education, the curriculum review committee concluded that an integrated, problem-based learning (PBL) was the most appropriate model (Kevau, Vince & McPherson 2004). To enable student representation, the Student Representation Council president was invited to be a member of the undergraduate curriculum review committee that was established.

In 2000 with the restructuring at UPNG, the Faculty of Medicine was renamed the School of Medicine and Health Sciences and became responsible for training postgraduate nursing, dentistry, pharmacy, diagnostic imaging and medical laboratory sciences.

Communicating curricula change to students

As the student representative, the author was required to attend the undergraduate curriculum review committee meetings that were held weekly. His primary role was to present to the members of the committee queries and concerns aired by students and to provide the committee's responses back to the general student body. The meetings with students were organised one or two days after the undergraduate curriculum review committee meetings.

At the meetings, the student representative informed the students of the responses of the undergraduate curriculum review committee to their queries and concerns. Sometimes the student body meetings were not sufficient to satisfy all the questions and concerns that students had. In an attempt to resolve this, questions and answer sessions were organised attended by the chairman of the undergraduate curriculum review committee, the Dean and/or a medical education consultant. Some questions and answer sessions required the presence of all three to address the students. The meetings were held either during lunch hours or in the evenings.

A student focus group was also formed to gauge the views of individual students. The focus group was used to gather student input on areas that they felt were lacking in the 'old' system and that needed to be included in the 'new' curriculum (e.g. computer skills, breaking bad news to patients). This focus group was comprised of class representatives from year two to five. If a class representative was not available he or she was instructed to appoint another student from his or her class to attend. Any other student that wanted to attend was also free to do so.

Prior to having the focus group discussions, class representatives were required to have class meetings to gather views and issues for clarification from their class members. It was left to the class representatives to decide on the number of class meetings. The student focus group met once a week with a medical education consultant to discuss student concerns and clarify issues that students had raised. This was especially important to explain the concept of an integrated PBL curriculum.

Under AusAID sponsorship, some members of the undergraduate curriculum review committee including the student representative made a fact-finding trip to Newcastle University in Australia to see first hand how a problem-based learning curriculum was being implemented in a medical school. The student representative's main objectives were to interact with students and conduct some student interviews to get their impression of what a PBL curriculum was like in reality. Arrangements were also made for the student representative to attend some of the PBL tutorials and seminars to get a feel of what they were like and how they were conducted. These were basically a lecture format but involved more student-teacher interaction.

After returning to PNG the student representative immediately arranged a series of student meetings to inform and update the student body about his experiences. A report was also submitted to the undergraduate curriculum review committee. Any unresolved issues were again brought to the undergraduate curriculum review committee meetings and the student focus group meetings.

Sources of information, miscommunication and student perceptions

The main sources of information for students were from internal sources such as the SRC, undergraduate curriculum review committee members, faculty staff, members of the student focus group and other students. Faculty staff members not involved in the committee would have obtained their information from reports submitted to Faculty Board meetings, tutor training and from faculty memos.

There were also external sources from which students obtained information, which were mainly the newspapers and practicing medical doctors. The newspapers would have obtained their information from press statements released by the faculty, while practising medical doctors obtained their information from the newspapers, faculty staff, other doctors and students.

Students were generally well informed of the reform and were positive about the changes that were taking place. However, there was an element of miscommunication which resulted in some negative student perceptions. It is most likely that the miscommunication occurred from external sources who maybe were not well informed themselves.

To date no study has been published to document the negative and positive perceptions that students had regarding the curriculum reform so an attempt is being made to list students' perceptions. The students' perceptions are from the author's experience and involvement with the undergraduate curriculum review committee and the student focus group and not from a formal structured study.

Positive perceptions of students to the problem based learning approach of the UPNG reformed medical education curriculum were that it would:

- would be more interactive
- expose them to patients early on
- remove negative marking in examinations
- improve their clinical skills
- get rid of 'unnecessary' practical classes
- improve communication skills to patients and colleagues both local and international
- be student-friendly.

Negative perceptions of students to the problem based learning approach of the UPNG reformed medical education curriculum were that it would:

- not be internationally recognised
- not cover basic medical sciences in sufficient depth
- place more pressure on students to do independent learning and replace the 'spoon fed' approach they may have previously experienced
- not develop students' skills to do self-directed learning (e.g. computer and Internet skills)
- not have adequate funding to resource and support successful implementation
- lead to a substandard degree and graduates would be perceived by society to have the same skills and knowledge as a nurse or a health extension officer.

Although some negative perceptions were extreme (e.g. basic medical sciences not being taught), others were valid (e.g. lacking computer and internet skills).

The second and third year students were generally more positive about the change compared with students who were in their fourth and final years of study. This is probably expected because second and third year medical students were in the early part of the MBBS program and therefore did not fully appreciate the 'old' curriculum and the shortfalls that the 'new' curriculum was trying to address. On the other hand, students in senior years having successfully gone through the second and third years, which were considered the 'toughest years' of the MBBS program, may have felt that there was nothing wrong with the old system and therefore there was no need for change. This perception could have been due to 'influences' from other senior students or practicing doctors. Faculty staff whose position or power was threatened could have contributed as well.

An area of concern for many students was in regard to the examination process and the credit point system. This was especially so for third year medical students who were being taught the traditional curriculum. If they failed third year that year (1998) it would mean that they would repeat the following year (1999) and would be taught under the PBL curriculum. As a result they were particularly concerned with how credits points and the calculation of grade point averages under the traditional curriculum would be affected by the change to the PBL curriculum. Further, almost all students were concerned about any negative effect the change to the PBL curriculum would have on

their eligibility for benefits from the National Scholarship program (now HECAS).

Discussion

The involvement of staff and students in the change process and the effective communication of information culminated in the successful implementation of the problem-based learning curriculum at UPNG. Beginning in 1999 the second and third year medical students were taught under the PBL curriculum and by 2001 it was taught across all undergraduate years of study. The last group of students to be taught under the traditional model did their final year in 2000. The successful transition from the traditional MBBS curriculum model to the PBL model meant that the curriculum planners had succeeded in getting support from the students for the adoption of the change. This is particularly important to note when UPNG is well known both nationally and internationally for student unrest, even though medical students at UPNG have usually been somewhat passive supporters of such unrest.

Most students obtained their information about the curriculum reform from internal sources which were usually accurate and up-to-date. A study done by McLean (2003b) at the Nelson Mandela School of Medicine at the University of Natal revealed that students are an important force for disseminating information to other students, either as individuals or as part of the student representative body. McLean argues that the support from the student body can be a powerful force to successfully implementing curriculum reform. The lack of student satisfaction with available information can lead to student unrest and violence as experienced at UPNG in 2005. It is critical that the student body are well informed with accurate details of planned changes.

The external sources were generally misinformed, to the extent of involving parliamentary debate, making newspaper headlines and attracting criticism from the public (Sims 2003, Duke, Tefuarani & Baravilala 2004). This was probably the major source contributing to the students' negative perceptions. Although McLean (2003b) cautions against negative perceptions being encouraged to be voiced, the author's experience at UPNG showed that one of the most effective way to gain student support and change negative perceptions was by allowing opinions and concerns to be voiced particularly in meetings with senior academics considered by students as respected experts in medical education. The involvement of an external medical education consultant in the student focus group was also an important factor.

The lesson that can be learnt here is that it is important for curriculum planners to constantly update external sources with accurate information about any reform through various institutional publications and other media avenues. This is especially important because the ultimate 'consumers' of the students and the curriculum they have studied will be the communities in which they will work.

Like students from most institutions, those at the UPNG Faculty of Medicine, strongly voiced their concerns about any possible negative impact the

curriculum reform might have on the status of their MBBS qualification and their future practice as medical doctors. The experience of the Faculty of Medicine revealed that mechanisms need to be in place to facilitate optimal levels of faculty-student communication during the curriculum reform process with a view to gaining student support for successful adoption of the change.

Faculty staff members are also an important source of information for students during the curriculum reform planning process. A well-informed staff can provide answers to student queries and concerns regarding various aspects of any change taking place or yet to be implemented (McLean 2003a). Despite the greatest efforts there will still be some staff that will be unsure of some aspects of a new curriculum as result of lack of professional development or lack of active involvement in planning or teaching the PBL curriculum. Indeed there may be some Faculty staff who will oppose the reform. It is therefore vital that curriculum planners and organisers ensure all staff and students are kept well informed to gain their full support for the reform process.

Conclusion

Change is often not readily accepted by society, especially when the 'old' system is viewed as adequate and has been in place for a very long time. The traditional MBBS curriculum at UPNG had been in place for more than 30 years and was viewed by most students and probably the staff to be adequate as it had produced graduates who have been successful as specialist medical officers, academics, professors, administrators, politicians and researchers both nationally and internationally.

Experience from communicating curriculum reform in eight American medical schools revealed that communication is 'a central and decisive element' in successfully implementing changes (McLean 2003b). The experience at the UPNG Faculty of Medicine supports this proposition. Further, an important element of reform is the need to communicate effectively to affected individuals or groups inadequacies in previous arrangements and the need for change. The curriculum planners at UPNG went to great lengths to achieve this among the students body. Curriculum reform was achieved at the UPNG Faculty of Medicine in a remarkably short time, i.e. introducing a completely new curriculum to all undergraduate years in three years (Kevau, Vince & McPherson 2004).

To quell any existing negative perceptions about the quality and standard of the new curriculum, the World Federation for Medical Education (WFME) was invited to accredit the UPNG MBBS problem based learning curriculum. This was done and completed in 2003 by a three member team appointed by the WFME, one of whom was an Executive Council Member. The preliminary report was a very positive one with important recommendations. Whether the WFME review committee's recommendations will be fully implemented is yet to be seen.

Implementing a new curriculum is a dynamic process and modifications will evolve in a developmental way over time. It is therefore important to provide timely information to staff and students when a curriculum review is planned and to provide them with opportunities for participation and to keep them updated as progress is made. It is particularly important that stakeholders are well-informed of the implications of curriculum reform on prior practices. In conclusion, 'learning to manage the change is probably more the major challenge for staff and students than accepting the change itself' (McLean 2003a).

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