Original Articles/นิพนธ์ต้นฉบับ

How Far Does The Clinical Teaching of Undergraduate Medical Course at Ramathibodi Hospital Medical School Meet The Current Trends in Clinical Teaching?

Sukhato K, MD.

Department of Family Medicine, Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Bangkok 10400, Thailand

Abstract

Background: The Faculty of Medicine, Ramathibodi Hospital, Mahidol University was founded in 1969. It has a traditional six year undergraduate medical course, the first three years being devoted to basic sciences and the last three to clinical sciences. The new curriculum for the pre-clinical years introduces clinical subjects early in the course at the same time as teaching the basic sciences (vertical integration). Similarly the new curriculum for the clinical year encourages inter-departmental collaboration, to create a horizontally integrated clinical course.

Objective: Although the new curriculum was developed at Ramathibodi to meet new educational ideas, gaps remain between trends in clinical teaching and existing educational practice. In this research, the current situation of clinical teaching and opinions about the some ways to improve the clinical teaching programme for undergraduate medical students at Ramathibodi Hospital from key personals were described.

Method: In this paper an iterative qualitative method was developed and used, which consisted of focus group interviews, key informant interviews and document analysis.

Participants in the research reflected the content of undergraduate medical curriculum and gave the opinions about the ways for improvement. The transcribed interviews with findings from document searches were analyzed.

We undertook semi structured interviews of 20 key informants from a sample of medical students, who rotated in Family Medicine Elective Clerkship, and faculty staffs, who involved in organizing the new undergraduate medical curriculum, to the extent they perceived about the current clinical teaching

Corresponding author: Sukhato K, MD.
Department of Family Medicine, Faculty of Medicine, Ramathibodi Hospital, Bangkok 10400, Thailand.
Telephone 0-2201-1406 Fax 0-2201-1486

progamme in Ramathibodi Hospital. Interviews sought information about how the current clinical teaching programme in Ramathibodi meet current trends in clinical teaching and how the clinical teaching programme improve to meet the trends.

Results & Conclusions: A number of steps are needed to be undertaken on order to implement the new curriculum development introduced by the Faculty of Medical Ramathibodi Hospital, including 1. expose students to patient-centred medical care throughout the course 2. provide students with clear educational aims and objectives of the programme, to help them develop self-directed learning 3. offer a greater range of instructional methods and 4. give students the opportunity to work in multi-disciplinary / inter-professional teams.

The new trends of clinical teaching were developed to meet the change. The current trends in clinical teaching are listed as following.[1,2]

1. Early introduction to clinical practice
2. Student-centred to patient-centred
3. Apprenticeship to systematic approach
4. Multi-professional aspects
5. Focus on the clinical setting
6. Reflective practice

Early introduction to clinical practice

Five years ago medical student' contact with patients was confined to the last three years of the programme, resulting in a poor link between clinical practice and the basic sciences. The new curriculum is designed to provide early and continuous exposure to clinical practice in the first three years by relating the basic science content to clinical applications. This is done through joint teaching by clinical and basic science faculties. Although discussion of the patient's perspective of illness is included in the curriculum, clinical exposure is limited to learning from case scenarios.

If horizontal and vertical integration of courses is to succeed, the curriculum should be designed to allow students to have early experience with patients. In the first three years, student learning in basic sciences and clinical practice can be facilitated by exposing them to common primary care problems in real primary care settings. This would have the strong positive impacts on student learning, not only on knowledge construction and development of clinical reasoning but in developing communication skills, understanding the impact of illness on patients' lives and developing professionalism.

Student-centred to patient-centred

In the last three clinical years, students experience a patient-centred approach to consulting during attachments to family medicine clerkship. This emphasises the importance of viewing a patient's problems in terms of physical, psychological and social components, together with the effects of his illness on his family. As part of the management process, the student needs to determine not only the nature and cause of his patient's problem, but also the patient's ideas, feelings, functioning and expectations. Additionally, students also have the opportunity of performing home visits to patients with chronic illness, joining doctors, nurses, and social workers. This allows them to see patients in a wider context and to experience primary care team-working.

There is considerable evidence showing a positive impact on a range of outcomes from using a patient-centred approach and home visiting. If we want students to appreciate the value of using a patient-centred approach and home visiting and adopt them in their future practice, students should have an opportunity to practice these approaches in the continuous manner and regular basis. This means that not only in the family medicine clerkship, students should also have opportunities to experience these concepts during their early pre-clinical years and during every ward-based rotations or out-patient attachments. Faculty staffs should be role models, using the patient centered approach in practice and incorporating home visiting in teaching sessions.

Apprenticeship to systematic approach

Medical students are exposed to an array of clinical experiences by rotating though all the medical specialties. Learning is usually haphazard and obtained opportunistically rather than systematically.

In an attempt to solve this problem, every student keeps a case log book of his experiences as an aid to determining his learning needs and to monitor his own performance. Despite this, each student's knowledge and clinical experience remains varied and is often dependent upon his interests and the random mix of patients seen. In practice, there is limited use of log books in some areas of clerkships and most faculty staffs have ignored the importance of monitoring the information they record.

Teachers should use the information collected in logs to ensure that each student is gaining an appropriate mix of clinical experiences and to adjust the teaching to include areas not covered by opportunistic learning. However, this may be difficult in my setting because we don't have enough personal resource. The other solutions for this problem is that study aims and objectives for the clinical year should be explicit and referred to on a regular basis, helping the student to direct his learning. Another solution to help students gain more systematic experience would be to provide them with a range of instructional methods to supplement learning needs. For example, interactive computer-based programmes to present case studies, or models to allow students to perform practical skills.

Multi-professional aspects

The old curriculum encouraged administrative inefficiency and individual clinical attachments became academically isolated. The new collaborative curriculum provides more opportunities for inter-departmental and inter-professional integration. Lectures, PBL sessions and case conferences for medical students are arranged jointly by inter-departmental and inter-professional staffs. This allows students to experience a multi-disciplinary team approach to providing comprehensive patient care. Multi-disciplinary conferences can also help students to develop the concept of integrated team working and to recognize the responsibilities and roles of other professionals.

The emphasis on inter-professional teaching is a strength of our new curriculum. However, we should encourage this method not only in integrated lectures and conferences but by providing students with opportunities to practice this approach in clinical settings, such as on wards and in out-patient settings, helping them to work better with other professionals and to develop good working relationships with wider teams. In this way students can complete the learning cycle by applying a concept to real practice.

Focus on the clinical setting

In recent years, most education of medical students at Ramathibodi Hospital has occurred in in-patient units. As Ramathibodi Hospital is a tertiary care hospital, in-patient wards provide treatment for the most critically ill patients using very specialized procedure-oriented technology. However, the need

to expand education in ambulatory medicine has been recognized as an extremely important part of medical student education, resulting in the new curriculum increasing student exposure to this area. As well as needing to move the emphasis of medical education from an in-patient to an ambulatory setting, the importance of providing a variety of clinical locations is also recognized. Through a collaborative programme between the Faculty of Medicine and other community based settings, medical students will have an opportunity to experience clinical medicine at more sites.

Community-based rotations and ambulatory settings allow students to encounter a greater variety of problems at different stages of illness and to perform basic diagnostic and therapeutic measures. In this kind of educational environment, establishing a good system for providing feedback to students is very challenging. In the ambulatory setting, teaching and learning is often described as brief, episodic, and chaotic. In those few minutes, teachers have to diagnose and manage the patient's problems as well as evaluate the student's strengths and weaknesses and make decisions about what to teach. In community-based practice, the main problems are time-pressure, interactions with little direct observation, and inadequate feedback from supervisors. However, there has been a proliferation of teaching models designed to meet these challenges. For example, the 'one minute preceptor model[3] has proved to be an effective tool for improving the quality of feedback, making teaching and learning in ambulatory settings more effective.

Reflective practice

Reflective practice is now seen as an extremely important tool for professional development. Reflection is a crucial process in the transforming of experience into knowledge, skills and attitudes. In addition to sharing reflection with teachers in out-patient attachments, students are encouraged to record reflection on their clinical experiences in log books and patient case reports.

Although students have many opportunities to practice reflection, many students are confused about what this really means and why it can be so valuable as a learning tool. A systematic use of reflection should be introduced to students at an early stage, including in the curriculum an emphasis on reflective practice as being the basis of professional development. To avoid being seen by students as another burden and a lot of paper works, reflective practice should be introduced informally during teaching sessions and clinical attachments in the regular basis. Teachers can help students to use reflection as a means of analysing their experiences, drawing out underlying concepts and thinking of alternative ways to approach problems. When students have confidence to reflect by themselves, they will be less threatened by its formal use.

Conclusion

The new curriculum developed by the Faculty of Medicine at Ramathibodi Hospital goes part way to following modern trends in clinical teaching. A number of further improvements could be introduced to build on the work already undertaken:

- introduce students to patients at a much earlier stage in the curriculum
- expose students to patient-centred medical care throughout the course
- provide students with clear educational aims and objectives of the programme, to help them develop self-directed learning
- maximise the use of student logs to identify individual and group learning needs and to provide feedback on performance
- offer a greater range of instructional methods
- give students the opportunity to work in multi-disciplinary / inter-professional teams

- develop teaching and learning tools to maximise the value of ambulatory and community-based experience
- use reflective practice as an integral part of the curriculum, thereby developing the skills needed for self-directed life-long learning

Limitations

The researcher chose key informants from the opportunity sampling technique. This sampling technique can produce a biased sample as the informants in this study may not represent the all population that involved in Ramathibodi medical undergraduate course. This group of students and teachers may have different qualities to the rest of students and teachers in general that affect to the results of the study.

Acknowledgment

I would like to thank Dr. Alan C. Dellow for the idea behind this research and his advice for all processes.

References

1. Greenlick MR. Educating physicians for the twenty-first century. Acad Med 1995;70:179-85.
2. McLeod PJ, Harden RM. Clinical teaching strate-gies for physicians. Med Teach 1985;7:173-89.
3. Salerno SM. et. al. Faculty development seminars based on the one-minute preceptor improve feedback in the ambulatory setting. J Gen Intern Med 2002;17:779-87.