

The Skype is the limit

Sustaining clinic pharmacy teaching at a foreign university

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Background: University of Peradeniya (UP) Sri Lanka has a new Bachelor of Pharmacy program. A clinical pharmacy subject is included in fourth year of the program, but due to lack of local expertise, UP sought assistance from their international colleagues to write and deliver this subject. Previously, Australian academics have travelled to Sri Lanka to teach this subject, but due to financial limitations, this may not be sustainable. Skype™ was identified as an alternative method to deliver lectures and collaborate with local lecturers.

Aim: To pilot the use of Skype™ technology to deliver lectures in clinical pharmacy to students at a foreign university and assess its effectiveness.

Methods: In January 2011, Australian academics began discussions with UP regarding their expectations from the Skype™ lectures. Following these discussions and perusal of course profile, the Australian academics agreed to deliver a series of lectures introducing clinical pharmacy. A student feedback questionnaire was designed to evaluate the lectures.

Results: A series of seven lectures was completed via Skype™ to third and fourth year students at UP. Students were provided with pre-tutorial tasks, and a copy of the lecture slides before the lecture. Later, lectures were refined in response to student feedback on the lecture delivery and content, usefulness of pre-lecture tasks, and effectiveness of audio-visual aids. Overall the feedback was positive and encouraging. The students commented positively on the usefulness of the pre-tutorial tasks and requested additional reading material.

Conclusions: Experienced clinical pharmacists in developed countries such as Australia can significantly impact on the quality of clinical pharmacy training in developing countries like Sri Lanka. In light of the difficulties to provide continual onsite teaching, Skype™ has proven to be a viable option.

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BACKGROUND

The University of Peradeniya (UP) in Sri Lanka has a new Bachelor of Pharmacy (B.Pharm) program. A clinical pharmacy course is in the fourth year. UP sought assistance from experienced Australian clinical pharmacist academics to write and deliver this course. Previously, Australian academics have travelled to Sri Lanka to teach this course, but due to financial and time limitations, this may not be a sustainable option in the future. Alternative options for course delivery were investigated.

Distance education technologies such as videotape and audiotape lectures, online courses and videoconferencing have been used to deliver healthcare courses.^{1,4} An advantage of videoconferencing is that it can overcome the problems of distance and geographical inaccessibility while permitting a "real time" interaction between those taking part. Synchronous videoconferencing has been studied widely in the health sciences.¹ It has been found to be a useful adjunct to traditional educational delivery modes, and can enable quality educational opportunities that would otherwise be prohibitive due to time, travel and cost constraints.⁷ Studies have shown no significant difference in student assessment outcomes between the traditional classroom and synchronous videoconferencing.^{2,8,9}

Videoconferencing via Voice over Internet Protocol (VoIP) technology e.g. Skype™ was identified as a suitable alternative method to deliver lectures at UP and to collaborate with UP academics.

AIM

The aim of this poster is to report the experience gained in the use of videoconferencing via Skype™ to deliver a series of introductory lectures in clinical pharmacy to students at a foreign university.



METHODS

In January 2011, the Australian academics agreed to write and deliver a series of seven lectures introducing clinical pharmacy. The series was delivered between February and June 2011. The lectures were screened to one site at the UP campus.

Description of technology and staff requirements

UP academics organised a lecture theatre and facilitated the sessions. The UP site had two projectors and a microphone. One projector displayed the Skype™ image of the Australian academic presenting the lecture and the other projector displayed the lecture PowerPoint. During lectures, a microphone was available for the students to encourage interaction with the Australian academic. The Australian academics delivered the lectures from a personal computer. No additional cost was incurred by UP as the technology and staff were already available. The Australian academics volunteered their personal time to write and deliver the lectures.

Description of resources provided

The following materials were made available to the students prior to each lecture:

- copy of the lecture PowerPoint slides
- pre-lecture reading e.g. journal articles relating to the lecture topic
- pre-lecture tasks e.g. questions relating to lecture topic based on the pre-reading material

Each lecture was one hour in duration with an extra fifteen minutes for discussion. The pre-lecture tasks were discussed during the lecture.

Lectures Topics

1. Introduction to Clinical Pharmacy
2. The art of medication history taking and reconciliation
3. Medication reconciliation and review
4. Discharge and counselling
5. Different roles of clinical pharmacists
6. Understanding clinical material - an introduction to medical terminology and abbreviations
7. How to present a case study

Evaluation of the Skype™ lectures

Students were asked to complete a feedback questionnaire after each lecture to enable UP and Australian academics to respond to student comments on the lecture.

A feedback survey was used at the end of the course to obtain the Australian academics' reflections on the use of video conferencing to deliver the course.



RESULTS

Overall the feedback was positive and encouraging. A summary of the feedback from the students is displayed in Table 1 and from the Australian academics in Table 2. Some comments from the students and academics are also displayed below. "Thank you, we really liked your teaching. It really helped me" "It is an excellent experience"

Table 1: Summary of the comments from the student feedback questionnaires

Feature	Summary of comments
Delivery	Pronunciation difficult to understand Reduce the speed of delivery of the lecture Speak more clearly and improve diction
Technology	Student concentration was affected by technical problems e.g. difficulty hearing the lecture and the poor visual quality through the projector
Pre-lecture tasks	Pre-lecture tasks helpful Request for more pre-reading Provide pre-lecture tasks earlier to give more opportunity to become familiar with the lecture content
Content of lecture	Request for more descriptive PowerPoint slides and increased use of examples throughout lecture

Table 2: Summary of the comments from the academic feedback surveys

"A very rewarding experience"
"I enjoyed the challenge of videoconferencing for lectures and engaging students"

Feature	Summary of comments
Preparation time	Similar time needed to prepare lectures compared to face-to-face lectures Extra time allowed at the beginning to ensure videoconferencing technology was working and at the end for feedback
Interaction	Less interactive than face to face lecturing Difficult to engage the students and develop rapport with them Use of questions and case studies during the lecture encouraged student participation
Technology	Poor reliability of UP internet connection UP Webcam unable to capture the whole class so the academics were unable to see all the students during the lecture
Cultural factors	Students were shy and reserved and reluctant to ask or answer questions.
Pre-lecture tasks	Pre-lecture tasks useful in providing the students with a basic understanding of the lecture topic before the lecture

DISCUSSION

What worked well

- Provision of pre-lecture tasks
- Provision of lecture PowerPoint slides prior to lectures
- Asking the students questions during the lecture to encourage participation
- Encouraging students to ask the academics questions during the lecture
- Familiarity with the use of Skype™ technology by academics and students
- Cost effectiveness of VoIP as it does not carry telephone connection charges

Suggestions for improvement

Australian academics

- need to speak slower and improve diction when delivering the lectures
- need to increase the amount of pre-lecture reading and tasks provided to the students
- could provide these pre-lecture reading and tasks at the start of the lecture series in a manual format
- need to discuss with UP the audio-visual difficulties experienced and suggest obtaining better videoconferencing equipment
- need to discuss with UP the importance of good internet connection to deliver the lecture series
- need to use local academics to facilitate the sessions and encourage student participation

CONCLUSION

Experienced clinical pharmacists in developed countries such as Australia can significantly impact on the quality of clinical pharmacy training in developing countries such as Sri Lanka. Many students throughout the world can benefit from the experience and knowledge gained from access to experts via the use of distance education technologies such as videoconferencing. In light of the difficulties to provide continual onsite teaching in Sri Lanka, Skype™ has proven to be a viable option and will be used to deliver the course in future.

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