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\textsuperscript{TM} was identified as an alternative method to deliver lectures and collaborate with local lecturers.

Aim: To pilot the use of Skype\textsuperscript{TM} 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\textsuperscript{TM} 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\textsuperscript{TM} 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\textsuperscript{TM} has proven to be a viable option.
The Skype is the limit: Sustaining clinical pharmacy teaching at a foreign university

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BACKGROUND

The University of Queensland (UQ) in Sri Lanka has a Bachelor of Pharmacy (BPharm) program. A clinical pharmacy course is the fourth year. UQ 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 sustainable in the future. Alternative options for course delivery were investigated.

Distance education technologies such as videocases and audiovisual lectures, online courses and videoconferencing have been used to deliver education courses.1-4 An advantage of videoconferencing is that it can overcome the problems of distance and geographical accessibility while providing a "real-time" interaction between those taking part. Synchronous videoconferencing has been widely used in the health sciences. It has been found to be a useful and effective tool for educational purposes and can enable quality educational opportunities that would otherwise be prohibitively time-consuming and costly.2,5 However, the impact of such an intervention on the academic achievement of the students remains to be elucidated and the long-term impact on the academic achievement of the students remains to be elucidated and the long-term impact on the academic achievement of the students remains to be elucidated.6

Videoconferencing via Skype was chosen to deliver some of the introductory lectures in the clinical pharmacy program at UQ and to collaborate with UQ academics.

AIM

The aim of this project was to report the experience gained in the use of videoconferencing via Skype to deliver some introductory lectures in clinical pharmacy modules at a foreign university.

METHODS

In January 2011, the Australian academics negotiated and delivered a series of videoconferencing lectures to UQ students in Sri Lanka. The lectures were delivered between February and June 2011. The lectures were recorded on one site of the UQ campus.

Description of technology and staff requirements

UQ academics organised a lecture theatre and facilitated the sessions. The Skype 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 academic student. The Australian academics delivered the lectures from a personal computer. No additional cost was incurred for Skype as the technology and staff were already available. The Australian academics valued the personal time to edit and deliver the lectures.

Description of resources provided

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

- copies of the lecture PowerPoint slides
- pre-lecture reading e.g. journal articles relating to the lecture topic
- pre-lecture tests 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 tests were discussed during the lecture.

Lectures Topics

1. Introduction to Clinical Pharmacy
2. The art of medication history taking and problem solving
3. Medication evaluation and review
4. Discharge and counseling
5. Different roles of clinical pharmacists
6. Understanding clinical patient - pharmacist and collaborative medical terminology and vocabularies
7. Hospital versus a community

Evaluation of the Skype lectures

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

A feedback survey was conducted at the end of the course to elicit 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 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 us." (Student)

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

<table>
<thead>
<tr>
<th>Feature</th>
<th>Summary of comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery</td>
<td>Pronunciation difficulties understood</td>
</tr>
<tr>
<td></td>
<td>Simplified language used</td>
</tr>
<tr>
<td></td>
<td>Reduced the speed of delivery of lectures</td>
</tr>
<tr>
<td></td>
<td>Improved clarity and improved lecture</td>
</tr>
<tr>
<td>Technology</td>
<td>Student satisfaction was affected by technical problems e.g. difficulty hearing the lecture and the inter-subject audio through the projector</td>
</tr>
<tr>
<td>Pre-lecture tasks</td>
<td>Pre-lecture tasks helpful</td>
</tr>
<tr>
<td></td>
<td>Request for more pre-reading to provide more opportunity to become familiar with the lecture content</td>
</tr>
<tr>
<td>Content of lecture</td>
<td>More description, powerpoint slides and increased use of images from actual lecture</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Feature</th>
<th>Summary of comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation</td>
<td>Time needed to prepare lecture compared to face-to-face lecture</td>
</tr>
<tr>
<td></td>
<td>Extra time allowed at the beginning to ensure videoconferencing technology was working and full</td>
</tr>
<tr>
<td></td>
<td>for feedback</td>
</tr>
<tr>
<td>Interaction</td>
<td>Less interactive than face-to-face lecture</td>
</tr>
<tr>
<td></td>
<td>Difficulty to engage the students and develop rapport with them</td>
</tr>
<tr>
<td></td>
<td>Use of questions and case studies during the lecture encouraged student participation</td>
</tr>
<tr>
<td>Technology</td>
<td>Poor reliability of Skype connection through the university</td>
</tr>
<tr>
<td></td>
<td>Skype login unable to capture the white board so the academics were unable to see all the students during the lecture</td>
</tr>
<tr>
<td>Cultural factors</td>
<td>Students new to Skype and required additional time to answer questions</td>
</tr>
<tr>
<td>Premature break</td>
<td>Pre-lecture tests could be providing students with a basic understanding of the lecture topic before the lecture</td>
</tr>
</tbody>
</table>

DISCUSSION

What worked well

- Provision of pre-lecture tests
- Provision of lecture PowerPoint slides in advance
- Asking the students questions during the lecture to encourage participation
- Encouraging students to ask the academics during the lecture
- Familiarity with the use of Skype technology by academics and students
- Cost effectiveness of Skype and it does not carry telephone connection charges

Suggestions for improvement

- Need to speak slower and improveintonation when delivering the lecture
- Need to increase the amount of pre-lecture reading and tasks provided to the students
- Need to utilise Skype more and improve the audio and video quality
- Need to discuss with the audio-visual difficulties experienced and suggest obtaining better videoconferencing equipment
- Need the support of managers in on-campus 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 the clinical pharmacy teaching in developing countries such as Sri Lanka. Many students throughout the world can benefit from the experience and knowledge gained from access to experts in the use of communication technologies such as videoconferencing. In light of the difficulties in providing continual support teaching in Sri Lanka, Skype has proven to be a viable option and can be used to deliver the course in future.

REFERENCES