An innovative educational module: Digital Lecture Series in Dermatology

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Introduction

Dermatology is a visual science, clinical photographs are an integral part of teaching material. Dermatological teaching was being performed with visual aids in form of slide/overhead projection. Digital educational modules are available abroad; however, Asian skin type is different. Hence, compilation of clinical material with focus on Asian skin for dermatological teaching is needed which has now become simplified with the advent of digital photography.

Development of a digital educational module (undergraduate/post graduate level; public education awareness material) in the Indian scenario was therefore considered. To initiate with, an undergraduate level module was developed with support from the National Dermatology Association.

Objectives:

1. To develop a *Digital Lecture Series in Dermatology,* an educational module covering the core curriculum for undergraduate students and a self-education tool for practicing dermatologists.

2. To assess *utility & acceptability of a pilot module* amongst faculty and students.

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Methodology

An undergraduate lecture series comprising 25 chapters (12 long and 13 short) was developed as per guidelines formulated in consultation with faculty of various medical colleges and the National Academic Committee. Text slides (PowerPoint) prepared by various authors were sent for peer review to expert dermatology faculty (40 reviewers) with each chapter being reviewed by 2-3 reviewers. Needed clinical photographs were identified and sought from medical colleges/contributors from all over India. Suggestions from peer review and the best clinical photographs received were incorporated.

The final version of the module was made in Adobe Flash format, with interactive features and incorporation of acknowledgement of sources/ copyright issues. Clinical photographs were watermarked, provided with legends and had zoom features for better appreciation of morphological features. All chapters had inter/ intra topic linkages and print facility for text notes in PDF (speaker's manual for faculty; audience notes for students).

The utility and acceptability of a pilot module (1 long / 1 short chapter) was assessed by 23 faculty and 138 undergraduate students in six medical colleges using pre-validated feedback questionnaires (10 questions on a six-point Likert scale and 2 open ended questions). Module content, text, clinical photographs, user friendliness, speaker's manual, audience notes, and the educator guide were assessed. Knowledge testing was performed on 62 students with 10 MCQs following module demonstration. Feedback questionnaires were statistically analyzed.

Results

All students and faculty agreed that the module was overall an effective tool for dermatology learning and teaching.

Text Content was strongly accepted by 52.9% of students and 56.5% of faculty, while Visual Content had strong acceptance by 81.9% of students and 78.3% of faculty. 87% of faculty and 84.8% of students found the speaker manual and audience notes helpful. 82.6% and 65.2% of the faculty found the print option and the educator guide useful. 97.8% students wanted module access via Internet/CD.

Knowledge testing results: 51.62% students scored 80% and above; 30.6% scored 60-80%; 17.78% scored below 60%. Evaluation of the open ended questions revealed the simple, lucid style of presentation and clinical photographs to be the best aspect of the module amongst most faculty/students. 25% of students and 20% of faculty wanted more photographs along with addition of algorithms and tables.

Analysis

The pilot module assessment helped in refining the module. As per evaluation recommendations, all chapters have been developed with incorporation of additional features such as photo quiz; supplementation of photos, tables and modifications in educator-guide.

Digital Lecture Series in Dermatology, an educational module covering the core curricular content for undergraduate students includes a peer reviewed compilation of 1800 text slides and 800 good quality teaching photographs in flash format with notes in PDF with a print option. The module has been released at the National Dermatology Conference and distributed to all dermatologists and medical colleges in India as a complimentary copy. As a project offshoot, two chapters have been utilized by practicing dermatologists on Vitiligo & Psoriasis day as a tool to create awareness regarding these diseases amongst general practitioners.

Increased module access is planned with website incorporation, updates and distribution of the module amongst educators and learners in India as well as in other Asian countries. In addition, feedback evaluation of the entire module from medical colleges and practicing dermatologists will be done.

This educational module, being a national-level initiative for promotion of academic activity has helped in compilation of good clinical teaching material for undergraduate teaching in dermatology. It could serve as a pilot project for national associations in other medical fields to develop their own educational modules.