

## Abstract

**Background:** It is now widely accepted that computer assisted learning/ on-line learning offers an exciting way of learning in medical education and at least effective as traditional instructor led teaching in undergraduate medical education as supplementary learning. In the field of endocrinology, diabetes mellitus is said to be one of the rising killer diseases, with an epidemic nature of its incidence globally. And also diabetes mellitus is the most prevalent and preventable endocrine disease affecting almost all the systems of the body. Therefore, it is very important that medical students and clinicians should have a greater knowledge of the different aspects of diabetes. At present the Medical Faculty of Colombo, has an on-line learning management system being built but it lacks a dedicated module on diabetes for the training of medical students. When the limited clinical exposure of the medical students due to the greater number of students in a batch and the non-standardization of the patient-cases are concerned, an on-line module would be a supplementary solution to deliver the required knowledge and the skills pertaining to diabetes in a reusable standardized manner.

**Method:** Common feasibility studies were conducted with self-administered questionnaires to assess the attitudes, readiness for a Learning Management System and the level of e-Learning literacy in students and teachers of the Faculty of Medicine, Colombo. A needs analysis was carried out with the participation of students, to evaluate the specific areas of diabetes and nature of the learning materials, with the use of questionnaires.

**Development and Evaluation of the Module:** Supplementary on-line learning module of diabetes was designed using the Assure model and the Addie model and developed using the available information and communication technologies such as, Adobe flash, Photoshop, Microsoft word, Reload editor, audio and video editor in the creation of html and scorm files. It was incorporated into the free and open source learning management system, Moodle, which shows numerous functionalities pertaining to the content management, administration and monitoring of the learning/teaching process. Evaluation was done with the participation of 13 students of 4<sup>th</sup> year on the local host.

**Results:** Higher availability of personal computers among students and teachers with high interest of web based communication and internet browsing for subject matter, depicts a greater readiness of on-line learning module as a supplementary learning. Majority of the students feel their current knowledge on diabetes is not good. More than 93% of the students prefer on-line learning module of diabetes mellitus. There is greater acceptance among medical students over on-line learning module on diabetes, though they need training on Moodle learning platform. Positive feedback was received towards on-line learning module of diabetes in the pilot study.