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INFORMATION AND COMMUNICATION TECHNOLOGY IN TEACHING PSYCHIATRY: THE CAL-PSYCH PROJECT.

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Abstract

Method : Information technology was introduced within the undergraduate psychiatry course. An e-learning programme was developed in conjunction with the Health Informatics Department in UCD. Feedback from the students was collected about the course and the site developed.

Results: All responders had used the provided e-learning facility. Quality and interactivity were rated positively. Further development of the project was encouraged.

Conclusion: Inclusion of information technology in medical education is viewed positively by students and if pedagogically developed may provide a model for continuous medical education.

Key words: Medical education, information technology, computer assisted learning, psychiatry, e-learning, life-long learning.

INTRODUCTION:.

The approach to medical education is evolving thoughout the world. Change ranges from review of the more traditional curricula to mode of delivery of the education process to developing learning skills and attitudes in students all leading to preparing doctors for a lifetime of Continuous Medical Education (CME). These changes are happening in varying degrees, the ultimate being perhaps the IVIMED1 project which seeks to optimize the use of Information Technology in its delivery (www.ivimeds.org). Underlying this is the recognition that concepts such as deep approaches to learning, independent learning, education for capability, life-long learning, student-centred approaches and problem-based teaching must be used (Dietrich2 1990; WHO3 1987;Samuel4 1990). Alongside this, teaching processes and educational delivery has to evolve to live up to quality requirements and professionalism expected by educational departments at European level as well as world wide.Students approaches to learning are equally expected to change to see them get more involved as more interactive methods are used and for them to take more charge of their pace and depth of learning preparing themselves for CME.

Greenhaglh5 in 2001 stated, " it is a truth universally acknowledged that the education of undergraduate medical students will be enhanced through the use of computer assisted learning. The development of Computer Assisted Learning in Psychiatry, CAL-PSYCH was based on the acknowledgement of the above changes. We believed that the judicious use of Information and Communication Technology (ICT) in teaching Psychiatry would contribute in improving delivery and would encourage students to develop skills and attitudes necessary for CME and would be in keeping with the overall trends evolving in Medical education.

We designed CAL-PSYCH to provide lecture material on-line for the Psychiatry Course for final medical students in University College Dublin who attend St. Vincent's University Hospital. We hypothesized that lecture provision on-line would give students flexibility in terms of the pace at which they want to download them. Interactivity and change in teaching style was encouraged by provision of web-lectures before formal lecture time so that this time could be used for problem-based clinical teaching. Provision of web-links and references would allow students to choose to develop the depth of their knowledge, and this at their own pace. On-line delivery is just one of many modes of delivery of learning and can be used as appropriate to a lesser or greater extent on individual courses.(Milligan6 1999)

METHOD:

CAL-PSYCH was implemented for undergraduate students. The project was appraised by lecturing colleagues and contributory lecturers. All lectures were updated and adapted for CAL web-based delivery. Good e-learning material must provide not just the knowledge or information but also the opportunity for communication and reinforcement of learning through reflection (Milligan6 1999).

The way e-learning material is written is important; the style used must allow the student to feel involved in a dialogue (Chessell7 1994). Provision of e-mail communication, and a feedback assessment contributed to on-line interactivity.

A standardized navigation look was aimed at to ensure user-friendliness.. CAL-PSYCH was accessible on the UCD portal for students to access and download their lectures and interact with the site. This type of Content and Support Model (CSM) of frameworks is described by Robin Mason of the Open University (Mason8 1998).

All students had access to multimedia personal computers with broadband internet access in the informatics laboratory in St. Vincents University Hospital and in the computer assisted learning facility in the Faculty of Medicine in University College Dub-

lin. Material was prepared suitable for download by students working at home using narrowband 56k modems for internet access.

A feedback questionnaire was used to collect data from the students using the system.

RESULTS:

75% (18) of students responded to our questionnaire. All of questionnaire-responders had used the website. 88.8% (16) downloaded all their lectures from the site 11.2% (2) downloaded only 25% of the course. 50% (9) browsed and used the rest of the site. 38.9% (7) visited associated links. 77.7% (14) found accessibility very good; 16.7% (3) found it good ; 5.5% (1) found it very poor. 38.9%(7) found site very good in terms of user-friendliness; 38.9% (7) found it good and 5.5% (1) found it poor. 55.5%(10) rated quality of downloaded lecture as very good; 38.9%(7) rated it as good; 5.5% (1) rated them as poor. 88.8% (16) rated interactivity in lectures as good and 11.2% (2) rated them as adequate. All responders thought the site should be developed further and that sub specialties of psychiatry that are part of the course should be included.

DISCUSSION:

Feedback obtained strongly suggests students will use e-learning material when made available. We acknowledge that only a small number of students (one of three that attend in an academic year) participated in this study but this was a first step into the integration of e-learning in our programme. We established collaboration with the Centre for Healthcare Informatics at UCD, who are promoting integration of information technology in teaching methods. As CAL-PSYCH was being developed, a new Virtual Learning Environments (VLE's) became available across all faculties in UCD.

VLEs are learning management software systems that synthesize communication software and on-line methods of delivering course materials. This technology is used to provide learners with new tools to facilitate learning. They aim to accommodate a wider range of learning styles and goals to encourage collaborative and resource-based learning and to allow greater sharing and re-use of resources (Britain,Liber, 9 et al 1999).As this became available to us CAL-PSYCH moved to the new VLE and further evaluation (other groups in the academic year) continues from there. Accessability in our study obtained better ratings than user-friendliness. These are tested for and standardized in VLE design. Integration of our programme in the VLE will influence them. It is important to appraise accessability and user-friendliness of programmes as they are the key to ensure the use of such facilities.

High interactivity ratings is a reflection of traditional lecture time having been freed up to facilitate a change in teaching style. Teaching in medical specialties is often carried out by doctors and tutors who are ill-prepared for it. These should be encouraged to acquire evolving teaching skills and become more aware of the possibilities offered by ICT in this field.

Other data collected in connection with CAL-PSYCH have given rise to one of the few data-based report and evaluation on the use of CAL in an undergraduate psychiatry medical curriculum. (Guerandel et al10 2003). These findings were presented at the AMEE (Association for Medical Education in Europe) in Berne, Switzerland (Guerandel 102003).

CONCLUSION :

The CAL-PSYCH project has forged strong links between the department of Psychiatry in SVUH and those involved in educational technology in UCD, which is in keeping with the multidisciplinary approach in medical education. Findings associated with CAL-PSYCH have also been presented at the Third International Symposium of: Internet, Psychiatry and Mental Health held in Paris, France, this in the context of CAL in the development of CME in psychiatry and Mental Health (Guerandel11 2003).

We are aware of the need for pedagogical concepts to be further developed and incorporated in the project, and for critical evaluation to be carried out from a pedagogical, health informatics and clinical aspect. As the development of the project continues, an international, multidisciplinary team led by psychiatrists involved in medical education, and health informatics expertise from UCD has been formed to develop an international computer-assisted programme in psychiatry (iCAL-PSYCH) working towards a contribution to continuous medical education .

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