

#4J09 (133370)

Students' attitude towards and self-reported practice of risk-based management of caries after using blended method compared with workshop

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**Background:** Traditional methods of teaching in medical sciences has been improved by applying new methods such as electronic media.

**Summary of Work:** The aim was to assess attitude and self-reported practice of students following a course on caries risk assessment (LRA) using blended method compared with workshop. A validated questionnaire (Cronbach's alpha=0.7) was used and a group of 82 students were invited and assigned to two groups randomly as I) a 3-day workshop and II) blended learning working with the developed website ([www.risk-assessment.ir](http://www.risk-assessment.ir)). The mean score of attitude and self-reported practice were compared before and immediately after the course using SPSS ver 16.0. The medium-term practice of students was assessed by reviewing the patients note in the following semester.

**Summary of Results:** The response rate was 95% and 59% of the respondents were female. In the traditional group (n=38) the baseline mean score of attitude (0-30) was 26 (2.95) and in the blended learning group was 25.82 (3.48), both improved after the course 27.28 (2.54) and 26.73 (2.43), respectively. The mean score of practice (0-4) has improved in both groups significantly ( $p < 0.05$ ). In medium-term follow up the more students in the blended group delivered risk-based management including risk assessment, oral hygiene instruction ( $p < 0.05$ ) and fluoride therapy for their patients.

**Discussion:** Both methods were successful in improvement of attitude and practice of undergraduate students regarding caries assessing risk. The medium-term assessment showed more sustained practice in the blended group.

**Conclusion:** In complicated education topics, learning can be facilitated by combination of traditional and modern techniques.

**Take Home Messages:** e-learning can be a useful method in medical education.

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Medical Education in a Conscript Military: Making use of Information Technology as a learning tool

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**Background:** Each year, the Singapore Armed Forces (SAF) Medical Training Institute trains a large number of medics. It is particularly challenging when the duration of their vocation training is only 3 months long, and more than 90% of these trainees do not have prior medical knowledge or experience. Traditional methods of lesson delivery such as flip charts and slides also do not appeal to the new generation of learners.

**Summary of Work:** In July 2015, we kick-started the LEARNet transformation for our Emergency Medical Technician course. In this project, app-based courseware were developed for the theory lessons, which were then downloaded into tablet devices, which every medic trainee would possess. These courseware also incorporated demonstration videos on common procedures and drills, knowledge check questions and a formative assessment at the end of each courseware. Furthermore, wireless infrastructure was built in our camps so that medics can have access to the coursewares outside their classrooms and even in their accommodation quarters.

**Summary of Results:** The proportion of time spent on didactic lessons was cut down by 9.5%, and diverted to more hands-on practice sessions.

**Discussion:** The transformation encouraged medics to do self-learning before attending face-to-face lessons, which could then focus on reinforcement of key messages.

**Conclusion:** Despite the challenge of having to impart medical knowledge to a lay population with no prior knowledge over a short time frame, we managed to overcome these difficulties with the use of a course transformation using information technology. Face to face lesson time can subsequently be used to facilitate more in-depth learning.

**Take Home Messages:** Information Technology is an enabling tool that can increase the efficacy of lesson delivery, engage new-generation learners and allow "learning-on-the-go".