P250 IMPROVING E-LEARNING ENVIRONMENTS FOR TOMORROW’S PÄEDIATRICIANS

Elizabeth Larkin*,1,2 Katie O’Connor,1,2 Paul McNally.1 The Royal College of Surgeons Ireland, Dublin, Ireland, 2Our Lady’s Children’s Hospital Crumlin, Dublin, Ireland

Introduction Students presently rely on the internet both as a data source and for educational needs; therefore, medical education should embrace changes in the learning landscape in light of technological advancements [1]. The RCSI Paediatrics undergraduate programme utilises an e-learning platform to support and reinforce didactic teaching.

A quality audit of RCSI’s Paediatric e-learning platform was conducted 2015 to 2018. In 2015, 75% of students surveyed reported poor platform accessibility, difficulty finding the desired information, and out-dated content.

Aim To identify effective ways of utilising an e-learning platform and improve support for learning and teaching online.

Methods Students were surveyed (n=330) and stakeholder meetings (n=20) were conducted to discuss and better understand our learners and their learning needs. User reports from the e-learning platform indicated changes in users’ frequency of access and duration online.

Results Feedback in 2015 showed student engagement and satisfaction were poor. To address this problem, students were surveyed and asked to identify aspects of the e-learning environment that they liked and which could be improved. Effort were made to identify e-learning platform areas requiring attention. By 2018 following implementation of platform improvements, there was a 79% increase in student visits.

Improvements included usability, making the e-learning platform layout and organisation more user friendly; compatibility, improving compatibility across interfaces for better access on mobile devices; diversity, creating multimedia content allowing users to select the media options that best suit their learning needs; medical educational videos, created to demonstrate how to conduct a physical exam, take patient history, and communicate with patients and their parents; and self-directed learning, students take increasing responsibility for their learning [2]. Gaining independent learning skills aid students in paediatrics.

Conclusion This audit aimed to improve medical students’ user experience and create a helpful e-learning environment to prepare future paediatricians. The 2018 user reports and student feedback showed greater student satisfaction and higher e-learning engagement.

REFERENCES

P251 IT’S A KNOCK OUT! – DENTAL TRAUMA

Emma O’Donnell, Victoria Cave, Niamh McGrath*. Glasgow Dental Hospital, Glasgow, UK

Introduction By 14 years of age, 30% of children have experienced a dental injury (1). Sports-related accidents account for 10–39% of all dental injuries (2). Wearing a properly fitted mouthguard during high risk sports has been shown to significantly reduce the risk of dental injury (3). In the United Kingdom, for many high risks sports mouthguard wear is still not compulsory. As a result, participants are at significant risk of traumatic dental injury. One of the more serious dental injuries is an Avulsion. This often results in multiple appointments over years, missing many days of work and school and a cost burden to the NHS. The average total cost of treating one patient with one traumatic injury has been cited as £856 (4). It is known that immediate management of this kind of dental injury is critical for improved outcomes. We therefore proposed ‘It’s a Knock Out!’ project.

Aims Improve dental trauma outcomes via improving knowledge and education of dental trauma prevention and management in higher risk groups. Subsequently aims included expansion of the training sessions out with Greater Glasgow.

Method Questionnaires were given before and after a presentation, practical and prevention session. These were aimed at educating non-dental care givers including coaches and management of sporting teams, youth groups and higher PE Student. Posters and leaflets were donated as memory aids. Local dental contacts were made in case of trauma.

Results Initial knowledge of management was poor. Attendees found the practical training most useful. Knowledge regarding time limits and who to attend was improved on. We received positive feedback from all groups approached. The attendees were more confident in dealing with dental avulsion.

REFERENCES
1. Management of Dental Trauma in a Primary Care Setting by Martha Ann Keels accessed on: http://pediatric.aappublications.org/content/133/2/e466
4. The cost of treating children and adolescents with injuries to their permanent incisors at a dental hospital in the United Kingdom, Ferranti S. L. Wong; Konstantina Kolokotsa. 02 November 2004 accessed on:

P252 STUDENT AND TEACHER EXPERIENCE OF CASE-BASED E-LEARNING IN PAEDIATRICS

Sarah Lewis*, 1Eoin Fitzgerald, 1Niall Collins, 2Kate Flinn, 1Clodagh O’Gorman, 2Anne-Marie Murphy, 1University of Limerick, Limerick, Ireland, 2University Hospital Limerick, Limerick, Ireland

Introduction Case-based learning teaches clinical reasoning, while the online environment allows flexibility of access and encourages self-directed learning. The use of virtual patients allows students to experience clinical decision-making in a safe environment and to learn about rare clinical presentation. Our aim was to explore the feasibility of designing a self-directed, case-based online learning module for undergraduate medical students in paediatrics.

REFERENCES

ADC 2019;104(Suppl 3):A1–A428
Methods Clinical cases were selected from paediatric admissions to University Hospital Limerick, with written informed consent obtained from parents for use of their child’s clinical information. Of several E-learning course development applications reviewed, ‘Articulate’ was selected for its ease of use, capacity to design interactive components, ability to incorporate multimedia and aesthetics. The course framework was created by our I.T. officer and clinical data and supporting content were added by the clinical tutors.

Results Our pilot case followed the clinical course of an infant with pyloric stenosis from presentation to outcome and was completed by medical students at the end of their paediatric rotation. Twenty-three students completed an anonymous online questionnaire on their experience of the course.

The visual aspects of the course were rated as very high quality by 87% of students and high quality by 13%. Ease of navigation was rated as extremely easy by 69%, with 96% of students satisfied with the duration of the course. Of students surveyed, 78% were happy with the level of interactivity, while 21% of students would have liked additional interactive sections.

The course was described as ‘extremely useful’ by 56% of students and ‘very useful’ by 30%, with only 4% finding the course ‘not very useful’. All students reported learning new information, with 17% learning ‘a great deal’, 39% ‘a lot’ and 39% a ‘moderate amount’ of information. Of those surveyed, 78% reported they ‘definitely would’ and 21% that they ‘probably would’ access more cases.

The ‘Articulate’ software allowed both I.T. and clinical tutors to contribute to the design process and cost was acceptable, with funding agreed by the university.

Conclusion We have successfully designed an authentic interactive case-based E-learning course with excellent feedback from medical students. We hope to design cases of increased complexity which could be extended to postgraduate paediatric trainees.

Recommendations We strongly suggest rationalising and optimising the cost of the CPD events and putting up a cap on the maximum amount of money that could be charged.

From the health side, 60% were Consultants, 27% were Paediatric trainees, 10% were Nurses and 3% were GPs.

1 in 2 respondents had no specific study budget. 1 in 3 had a study budget of between £500 and £1000. 1 in 10 of them was allowed to spend less than £500 and 1 in 20 had the luxury to spend £1000 per year.

2 out of 3 of the respondents reported that their study budget is inadequate. An overwhelming majority (80%) were of the opinion that the CPD events should either be free to attend or cost less than £50 per day.

Conclusion Many CPD events are currently priced at £500 or more. Attending one such CPD may consume entire year’s study budget and seriously jeopardise clinicians ability to keep up with the on-going learning needs in a fast-changing world of medicine. Tax Payers’ money must not be used for institutional profit-seeking.

Aim To compare the opinion of paediatric consultants to paediatric Senior House Officer’s (SHO’s) with regards their perceived level of preparedness for clinical work in paediatrics.

Methods A 10 item five-point Likert scale questionnaire (1=strongly disagree, 5= strongly agree) was administered to paediatric consultants examining how well they felt their SHO was performing. A similar 10 item questionnaire was administered to current paediatric SHO’s examining how well prepared they felt they were to perform in these areas when they commenced work in paediatrics.

There were 5 questions which appeared on both questionnaires and related to: procedures, clinical examination, teamwork, history taking and out-patient consultations.

Results 50 consultants completed the questionnaire and expressed satisfaction with all aspects of their SHO’s performance. 75 SHO’s completed the questionnaire and rated their undergraduate preparation for the job relatively poorly in the

<table>
<thead>
<tr>
<th>Question</th>
<th>Consultant Median Likert score</th>
<th>SHO (n=75) Median likert score</th>
<th>pValue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedures</td>
<td>4 (n=46)</td>
<td>2</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Clinical exam</td>
<td>4 (n=50)</td>
<td>4</td>
<td>0.51</td>
</tr>
<tr>
<td>Teamwork</td>
<td>4 (n=47)</td>
<td>4</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>History Taking</td>
<td>4 (n=36)</td>
<td>4</td>
<td>0.15</td>
</tr>
<tr>
<td>Out-patient work</td>
<td>4 (n=33)</td>
<td>4</td>
<td>&lt;0.05</td>
</tr>
</tbody>
</table>

Abstract P254 Table 1 Comparing responses by SHO to consultants for those question which appear on both the SHO and consultant satisfaction questionnaire using a Mann Whitney U test.