#71 Short Communications: Portfolios

Location: Room 101 a/b

### #711 (2495)
Implementation of an undergraduate learning portfolio integrating EPAs with a logbook, reflective activities and a mentoring program

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**Background:** One of the key features of a successful learning process is the ability of medical students to develop a reflective, pro-active approach with respect to their learning: assess their progress towards the learning objectives, identify their strengths and weaknesses, and continuously evaluate and improve their performance.

**Summary of work:** In order to provide the necessary curricular structure and support, our medical school has developed a learning portfolio for its undergraduate clinical skills education program (PULS). The structure of PULS is guided by PROFILES, the new EPA-based national framework defining the objectives of the medical studies in Switzerland.

**Summary of results:** PULS accompanies the students during their 4-year clinical curriculum, integrating a longitudinal mentoring program. The learning scenario, which is repeated each semester, is based on 3 steps. First, the students collect relevant information in the form of reflections and formative evaluations, and by tracing their clinical exposition within a logbook.

**Discussion:** They then use this information to evaluate their progress with respect to the different EPAs described in PROFILES. Finally, the students synthesize their reflections and the assessment of their progress in a short text, which will be used as the basis of a meeting with their clinical advisor.

**Conclusion:** We will present the structure and the content of our electronic portfolio, describe how we integrate the EPAs with the other components of PULS in order to allow the students to assess their progress, and discuss the challenges associated with the introduction of a longitudinal mentoring program.

**Take-home message:** We will conclude our presentation with a list of success factors we consider key for the implementation of a longitudinal learning portfolio such as PULS.

### #712 (3098)
EPAs, Milestones and the use of a Learning Portfolio to enhance self-evaluation

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**Background:** The medical school of Lausanne has developed a learning portfolio (PULS) to support the learning of clinical skills. The structure of the portfolio is guided by the framework of the national learning objectives of the medical studies, based particularly on nine entrustable professional activities (EPAs) for entering residency.

**Summary of work:** Students need to know at which level they are entrustable. Ad hoc decisions may be made informally on an impression, but summative entrustability decisions require the availability of a supervisor. To help students to identify their progress, we developed a model based on self-evaluation of their entrustability level.

**Summary of results:** We conducted an iterative process of definition and validation of milestones to characterize the different entrustability levels of each EPA. The milestones' descriptors rely on observable behaviors and can therefore be connected to the content of the learning portfolio (formative assessment, feedback forms, self-reflective activities).

**Discussion:** We will discuss the process of students' self-evaluation of a perceived entrustability level and the importance of a mentoring program to support their self-reflection, facilitate the synthesis of the portfolio's information as well as guide them to identify learning objectives and the means to reach the next entrustability level.

**Conclusion:** We will conclude with students' and teachers' perception of the process, regarding specially on the one hand the utility of milestones and, on the other hand, the learning effect.

**Take-home message:** In a curriculum based on EPAs, students need to know at which level they are entrustable. To help them to self-evaluate their progress, milestones based on observable behaviors are defined for each entrustability level. A synthesis of the portfolio's content to support their evaluation will be facilitated by a mentor.
#713 (476)
Medical Student engagement with an e-portfolio; A good predictor of Final Examination performance

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Background: In response to the GMC (General Medical Council) recommendations our graduate students are asked to maintain a professional portfolio. A small group of students did not complete this requirement within the set time limit and went on to fail final examinations.

Summary of work: We studied three consecutive year groups of medical students who should have completed the whole course at the time of data collection. The completion rate of every individual student was monitored monthly throughout their Final year and then compared to examination results.

Summary of results: Portfolio completion rates of students who failed Final examinations was significantly different to the rest of the cohort (p=0.0003). 90% of students who failed Final examinations did not engage within six months of starting Final year. Conversely 75% of students who were proactive and organised obtained honours at examination.

Discussion: Completion of portfolio requirements appears to a very good predictor of examination performance. Those students who did not engage and only uploaded evidence just before the deadline for completion had a significantly different outcome to those who were proactive and completed their portfolio in a methodical manner.

Conclusion: It is unclear what the selecting factor maybe but organisation plays a significant role in portfolio management. For the majority of students who fail no concerns have been raised about their academic ability but there is some historical evidence of poor time management or their ability to undertake self-directed learning.

Take-home message: This previously unrecognised indicator of a struggling student may be an important first step for early intervention and an opportunity to provide support.

#714 (336)
Factors influencing electronic portfolio (ePortfolio) acceptability and impacts on occupational therapists continuing professional development

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Background: The use of ePortfolio for continuing professional education (CPD) purposes has grown during the last decade and has been implemented by many professional regulatory organizations. However, evidence suggests that multiple personal and contextual factors and e-Portfolio characteristics can influence its acceptability and impacts on CPD (CPD plan implementation, practice improvement).

Summary of work: A survey was conducted among occupational therapists in Quebec (Canada) where completion of an ePortfolio is mandatory. It comprised 34 questions and measured ease of use, satisfaction, perceived impacts of portfolio on CPD and potential influential factors. Stepwise multiple linear regressions were performed to identify factors influencing acceptability and impacts.

Summary of results: A total of 546 respondents completed the survey. Factors most significantly influencing ePortfolio acceptability and impacts (p ≤ 0.05) were: perceived relevance of the tool for improving practice, improved ability to complete the tool with repeated use, understanding of portfolio instructions and goals and a desire to receive more feedback.

Discussion: Findings highlight the importance of improving professionals’ attitudes towards the ePortfolio and their understanding of its purposes. Repeated use and adequate feedback provision could lead to greater perceived relevance of the tool. Strategies to increase provision of feedback by peers or mentors should be evaluated in the context of CPD.

Conclusion: Understanding factors influencing acceptability and impacts of ePortfolio is important to improve its valid and effective use in the context of CPD. Interventions aimed at improving attitudes towards and purpose of the ePortfolio provided by regulatory organizations could improve ease of use, satisfaction and perceived impacts of portfolio on CPD.

Take-home message: Specific factors can be targeted to significantly improve ePortfolio acceptability and impacts. Most important factors appear to be perceived relevance of portfolio, understanding of portfolio instructions and goals, developing ease with using the tool and feedback provision.
Continuous workplace learning in healthcare education: a co-creation and innovation project in Ghent (Belgium)

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Background: Embo’s continuous workplace learning model is an evidence-based and practical model to train and assess competencies and to guide continuous competency development during workplace learning. The model was paper-based and designed in one midwifery department. This project aims to digitize the model and to explore generalizability to other healthcare programs.

Summary of work: The university College Arteveldehogeschool Ghent (Belgium) funded a two years co-creation and innovation project ‘digitizing workplace learning’, a collaboration project between speech pathology and midwifery (2015-2017). A multidisciplinary team described specific goals in different subprojects. A graphic designer supported the process.

Summary of results: The model is digitized by Medbook, piloted at the University Hospital Ghent for both professions and implemented in midwifery. Delphi-studies are set up to validate assessment-criteria. A digital quality measurement instrument was launched. Audio and video applications are investigated. The project members share expertise with interested colleagues from other departments.

Discussion: Workplace learning is complex and this project confirms that digitizing workplace learning encompasses all educational components. Introducing the concept of ‘continuity’ as an organizing principle is key to success. The role of personal coaches to guide overarching competency development and the expansion to an overall portfolio was discussed.

Conclusion: Digitizing Embo’s continuous workplace learning model was the start of a really inspiring and growing co-creation and innovation project between healthcare educators from different disciplines, professionals from the workplace, researchers and company directors. Results, pitfalls and challenges of this project will be presented.

Take-home message: A competency-based model for continuous learning in healthcare education was digitized and implemented in order to prepare graduates for the challenges they will face in the healthcare system. The concept of ‘continuity’ as an organizing principle seems essential to improve further healthcare education.

How well did the new ePortfolio promote reflection? A qualitative study

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Background: The Glasgow Undergraduate Medical ePortfolio aims to support Personal and Professional Development in medical students during their early years’ small group learning activities. It provides a stimulus to reflective practice through early engagement with an authentic ePortfolio. Tutors can give timely evaluation and feedback, key in reflective practice development.

Summary of work: An exploratory qualitative study enabled the voices of 14 students (2 focus groups) and 6 tutors (semi-structured interviews) to be heard. Research/interview questions were based on literature review and course evaluation. Interviews were conducted using an inductive process, recorded, transcribed and coded.

Emerging themes: • Feedback/Assessment; • Reflection; • Support/Training; • ePortfolio function

Summary of results: • Supported Reflective Learning, including early introduction; • Tutors were good mentors; • Feedback was perceived to be of varying quality/quantity; • Tutors felt feedback training may be required; • The interface could be improved; • Submission timing was suboptimal; • Institutional and educational support could be stronger; • Participants preferred formative over summative assessment; • Engagement was good

Discussion: Submissions were often made late in the semester minimising potential educational benefit from tutor feedback and increasing the possibility of inauthentic submission. Scaffold boxes aided reflective writing while interface difficulties were a disincentive. Through the ePortfolio tutors gained greater insight into student thinking. However, students felt feedback quality was variable.

Conclusion: Participants backed use of the ePortfolio in early curriculum years and its role in promoting reflective learning. Adjustments to feedback provision, training and timing may be helpful. Improvements in the ePortfolio’s limited scope and enhanced institutional backing may help it realize its educational potential to promote reflective learning.

Take-home message: • Improve tutor training of reflective practice and feedback; • Extend the scope of the ePortfolio to allow it more opportunity to promote reflection; • Improve interface experience; • Mutually agree earlier submission dates; • Improve institutional support for reflective learning and ePortfolio curriculum integration; • Arrange further study of reflective writing content