analysis of documents published in scientific, professional and general media about a current healthcare issue by teamwork in flipped classroom during fourth year.

Results: In second and third year, our students often question the usefulness of exercises about critical appraisal of a document published in scientific, pharmaceutical or general media. In fourth year, most students appreciate the teamwork about a current issue, such as access to innovative and costly cancer drugs. They also appreciate presenting their work to their colleagues, and understand that exercises done in earlier years were indeed useful.

Discussion: We should discuss how to make critical appraisal exercises in early years more attractive, for instance by developing and applying more interactive methods. As our students continue critical appraisal exercises during fifth year when specialising for community pharmacy, hospital pharmacy or pharmaceutical industry, they are well prepared for critical appraisal of their professional environment and within their daily activities when arriving in their professional settings.

P-28 Experiences of inter-professional simulation learning in pharmacotherapy education

Miia Tiihonen[1], Eeva-Riitta Ylinen[2], Riitta Turjamaa[2], Kirsti Laitinen[1]

[1]University of Eastern Finland, School of Pharmacy, Finland

[2]Savonia University of Applied Sciences, Unit of Health Care Kuopio

Aims: This study describes our experiences of inter-professional education (IPE) provided via simulation learning in pharmacotherapy with nursing and pharmacy students. A simulation was used to deliver a clinically realistic scenario of patient care. Our aim was to develop an inter-professional simulation learning environment to increase students' knowledge on the following topics; how to conduct a medication review.

Method: The IPE was carried out in the Savonia Simulation Center and delivered to fifth year pharmacy students (n=4) and third year nursing students (n=32) as part of their pharmacotherapy course. The implementation of the simulation was devised by a multi-professional team consisting of a Senior Lecturer in Nursing (design of simulation) and two Senior Lecturers in Pharmacy (validation of medication review). Nurse-pharmacist-student pairs were the actors in each simulation representing their own professional roles. The out-patient (standardised patient acted by a senior teacher) was a client living in a care home for the elderly, whose well-being, functioning and memory had deteriorated. The nurse and pharmacist visited her home (room furnished suitably for an aged patient) to assess her medication and health condition. At the same time, other students followed their actions on a monitor and made observations concerning the drug related problems found and inter-professional communication skills. Afterwards, a debriefing and evaluation were made by students and teachers. The students responded by filling in a questionnaire after the simulation.

Results: Most of the nursing students (88 %) and all pharmacy students found that inter-professional simulations increased their professional and communication skills. Most nursing students (94 %) and pharmacy students (75%) considered the simulations to be educational. Most of the nursing students (97 %) and pharmacy students thought that simulation learning had increased their ability to understand drug and health related problems. It also improved their skills to review a patient's medication. All students considered that their competence for medication counselling had increased.

Discussion: Our experiences of inter-professional simulation learning among nursing and pharmacy students were positive. Students found the simulations to be educational and useful for developing their professional roles. Simulations offer a possibility to undertake inter-professional collaboration to solve real-life situations. IPE should be incorporated in the curriculum for healthcare professional students and simulations could be an effective method to teach team communication and improve drug safety.

P-29 Longitudinal changes in autonomous and controlled motivation of pharmacists in the Dutch continuing education system

Sharon L.N.M. Tjin A Tsoi[1,2], Gerda Croiset[3,4], Anthonius de Boer[1,2], Rashmi A. Kusurkar[3,4], Andries S. Koster[2]

[1]Netherlands Centre for Post-Academic Education in Pharmacy, Zeist,, The Netherlands

[2]Department of Pharmaceutical Sciences, Utrecht University, Utrecht, The Netherlands

[3]VUmc School of Medical Sciences, Free University, Amsterdam, The Netherlands

[4]LEARN! Research Institute for Learning and Education, Free University, Amsterdam, The Netherlands

Introduction: Pharmacists' motivation for Continuing Education (CE) and Continuing Professional Development (CPD) play a pivotal role in the quality of learning outcomes and patient care. Autonomous motivation (AM) − in contrast to controlled motivation (CM) − is associated with deep learning, better learning outcomes, and less likely leads to burnout[1]. By understanding the dynamics of motivation a CE/CPD system might be designed that ideally fosters AM.

Aim: The aim of this study was to follow longitudinal changes in motivation of pharmacists participating in the Dutch CE/CPD-system during a two-year period (2013-2015).

Method: AM and CM was measured at three time points (0, 9 and 21 months) using 5-point Likert scales from the Academic Motivation Scale and Relative Autonomous Motivation (RAM) was calculated from the sub-scales[1]. Latent Growth Modelling was used to analyse the data.

Results: AM (3.35 ± 0.55) increased over 21 months (slope = 0.071 ± 0.031 per year), but CM (1.87 ± 0.64) increased more steeply (slope = 0.194 ± 0.035 per year). As a consequence, RAM decreased over time. Traineeship was the only factor, which significantly influenced the change in motivation. No subgroups with different developmental trajectories could be identified.

Discussion: The RAM of Dutch pharmacists for CE decreased over a 21-month period as a result of a relatively strong increase of CM. Further research is needed to gain a better understanding of the association between pharmacists' motivation and the characteristics of the current CE system.

References

[1]Tjin A Tsoi, S.L.N.M., de Boer, A. *et.al*. (2016). Factors influencing participation in continuing professional development: A focus on motivation among pharmacists. *Journal of Continuing Education in the Health Professions*, **36**, 144-150.

P-30 Evaluation of a post-graduate residency programme for community pharmacists in The Netherlands

Marnix P.D. Westein[1], Harry de Vries[2], Annemieke Floor[3], Andries Koster[4], Henk Buurma[1,3]

[1]Royal Dutch Pharmacists Association (KNMP), the Hague, The Netherlands

[2]HPC, the Human Perspective in Consulting, the Hague, The Netherlands

[3]SIR Institute for Pharmacy Practice and Policy, Leiden, The Netherlands

[4]The Department of Pharmaceutical Sciences, Utrecht University, Utrecht, The Netherlands

Introduction: In 2012 a modernised post-graduate two-year educational programme for Dutch community pharmacists was introduced. The programme focusses on residency training in order to develop seven competencies for community pharmacists on ten predefined task areas according to the CanMEDS framework[1]. Workplace learning is driven by programmatic assessment[2] of 40 Entrustable Professional Activities[3] (EPAs).

Aim: In 2014 the educational programme was evaluated with the aim of discovering the bottlenecks in the curriculum as experienced by pharmacist trainees and supervisors and to gather opportunities for improving the curriculum.

Method: Two focus groups with pharmacist trainees and supervisors were held. Three themes were discussed: trainees and supervisor workload, learning in the pharmacy workplace, and utility of the assessment system. The results were discussed with a review committee representing all relevant stakeholders.

Results: The pharmacist trainees and the supervisors each reported six bottlenecks in the current curriculum. On the basis of these results the review committee recommended for the following changes to be made: 1) Lower the quantity of formative assessments; 2) Clarify the assessment instruments used; 3) Make portfolio less administrative and more comprehensible; 4) Make the introductory course for supervisors more instructive; 5) Evaluate the impact and relevance of the additional central courses.

Discussion: The modernisation of the educational programme for community pharmacists was endorsed by all stakeholders. The competency framework consisting of seven CanMEDS competencies and ten task areas was considered valid. The programmatic assessment on the other hand needed adjustments. Of the 40 predefined EPAs ten were adjusted leading to a reduction of the total number of EPAs to 36. Also the number of formative assessments was reduced considerably from 156 to 92 (70% reduction). Finally, the user-friendliness of the portfolio and assessment-instruments was improved.

References

[1]Frank, J.R., Snell, L., Sherbino, J. (eds.) (2015). CanMEDS 2015 Physician Competency Framework. Ottawa: Royal College of Physicians and Surgeons of Canada.

[2]Van Der Vleuten, C.P.M., Schuwirth, L.W.T., Driessen, E.W., Dijkstra, J., Tigelaar, D., Baartman, L.K.J. & Van Tartwijk, J. (2012). A model for programmatic assessment fit for purpose. *Medical teacher*, **34**(3), 205-214.

[3]Ten Cate, O. (2005). Entrustability of professional activities and competency-based training. *Medical Education*, **39**(12), 1176-1177.

P-32 Educational initiatives for pharmacy students at Medical University of Białystok, Poland

Katarzyna Winnicka, Wojciech Miltyk, Michał Tomczyk

Faculty of Pharmacy with the Division of Laboratory Medicine, Medical University of Białystok, Poland

Introduction: Pharmacists are highly accessible healthcare providers and feature prominently in Polish healthcare system characterised by more demanding patients.