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Book of Abstracts

2024 EAFP annual conference

Bergen - Norway

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Abstracts are listed chronologically as presented in the programme.

Posters are listed by theme from page 38.



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2024 EAFP Invited Speakers' Presentation Abstract

Abstract ID = 1925

14/05/2024 - 14:45-15:30 - 1st Session - Invited Speakers

Making Pharmacy Education Relevant

2

David Wright

University of Leicester

David Wright

Sue Ambler

Dan Greenwood

Ayesha Rahman

Introduction

By 2026 the UK government requires all new pharmacy registrants to achieve independent prescriber status. The current UK model for pharmacy education a four-year University based degree followed by a one-year employer-led foundation year with prescriber training integrated into this from 2025.

The new pharmacy program at the University of Leicester, which is planned to start in 2024, had to be designed against this context. The ethos is that pharmacist development will be a partnership between employers and the higher education institute and that the focus will be on producing healthcare professionals and not healthcare scientists.

This abstract describes the processes that the team went through to create a relevant program and its plans to maintain this moving forward.

Method

Meetings were held with patients and public members and recent pharmacy graduates to obtain their views regarding what is required for the education and training of safe and effective pharmacist prescribers.

A senior employer advisory group (SEAG), including managers from hospital, community and primary care pharmacy, was set up to oversee course development. A course development team underpinned this, consisting of education experts employed by SEAG members. Four meetings of each group were held over 18 months.



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Results

Patients wanted pharmacists who care, can communicate effectively and can work well with their doctors.

Recent graduates want to be taught by pharmacists, to experience significantly less Chemistry, have better preparation for practice and more clinical teaching.

Employers recommended 13-week non-overlapping placements in each year and agreed the skills that should be covered at each stage.

Conclusions

An external advisory board from employer groups was created to maintain relevance. Plans to employ of practising and research active staff only will support this.

Applications for the program have been overwhelming with students citing the exciting new program model and plans for placements as main drivers.

Literature

2024 EAFP Invited Speakers' Presentation Abstract

Abstract ID = 1929

14/05/2024 - 14:45-15:30 - 1st Session - Invited Speakers

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Professional identity formation – how can our education help?

Tamara Köhler

Universiteit Utrecht

Introduction

In this talk, we will get acquainted with professional identity formation (PIF) in the pharmacy context. PIF is said to entail 'thinking, feeling and acting' as a professional and intentional development of students' professional identity is getting more important in our programs. But how do we do that? How do we, as educators, support our students in the transition from being a student to being a pharmacist?

This talk aims to provide an overview of recent literature and educational incentives. And for some audience participation: What do you think 'makes' a pharmacist?

Method

Results

Conclusions

Literature

2024 EAFP annual conference Abstracts

oral

Abstract ID = 1674

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14/05/2024 - 15:30-16:30 - 1st Session Oral Presentations x 4

USING DATA ANALYTICS IN CURRICULUM DESIGN – THE
PERFORMANCE OF FIVE COHORTS OF BACHELOR OF PHARMACY
STUDENTS IN FIRST YEAR MANDATORY COURSES

Katja Taxis

University of Groningen

Mirjan Van Timmeren

Antonio Giuliani

Jan-Willem Brijan

Introduction

Monitoring of student performance provides valuable insights on the effectiveness of the curriculum and can be used to steer decision-making. We aimed to use a data analytics approach to evaluate the grading of first year courses of the BSc Pharmacy program at the University of Groningen, The Netherlands.

Method

Data of five cohorts of students were analysed (2018-2022) on performance in first year mandatory courses. For the analysis the cohort was divided in three groups, the best performing 20%, the least performing 20% and the middle group. The groups were constructed based on the total performance in the first year, summing up the credits and multiply this by the best grade on that course squared, giving more weight to the performance ($\text{Sum}(\text{ects} \times \text{final_grades}^2)$). The average grades of the three groups on the individual courses were compared to identify courses which do not distinguish between high and low performing students. The plots of cohorts were compared across the years.

Results



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Fourteen first year courses were included in the analysis. Patterns were consistent across the cohorts, despite the corona pandemic where assessment methods had to be adapted for some courses. The majority of courses did distinguish between the three groups of students. Two courses consistently did not distinguish between high, low and average performing students. For a few courses there was little difference between high and middle groups for some years, but this trend was not visible in the latest cohort (2022).

Conclusions

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Data on the analysis of first year cohorts suggests to modify grading of two courses to a pass/fail instead of regular grading. We may also use the data to guide us in reducing the number of grading moments in the first year. Data analytics is a valuable tool which can be used to support changes in the curriculum.

Literature

2024 EAFP annual conference Abstracts

oral

Abstract ID = 1681

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14/05/2024 - 15:30-16:30 - 1st Session Oral Presentations x 4

EDUCATION FOR SUSTAINABLE TRANSFORMATION – TRANSDISCIPLINARY COURSE ON SUSTAINABLE HEALTH

Anniina Tammisalo

Faculty of Pharmacy, University of Helsinki

Ilkka Miettinen

Leena Hanski

Outi Lapatto-Reiniluoto

Sanja Riikonen

Tiina Sikanen

Mia Sívén

Introduction

Sustainable Health, a new online course, was built on the following key principles: 1. Addressing the need for increased sustainability education in pharmacy. 2. Centralizing sustainability themes currently scattered across courses. 3. Emphasizing a holistic approach due to surveys indicating students' narrowed focus on specific sustainability aspects. 4. Offering a flexible course that can be easily integrated into various programmes.

Designed for university students in health and life sciences, the course encourages interdisciplinary collaboration and broader perspectives on sustainability.

Method

The course includes self-directed online learning with experimental storytelling elements. During the course, students create an e-portfolio of sustainability challenges and solutions. Assignments centred around the United Nations 17 Sustainable Development Goals on



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human, animal, and environmental health guide portfolio building. Participants may work independently or collaborate, and peer feedback workshops provide formative assessment.

Results

The learning outcomes and feedback from a course pilot suggest that the participants' sustainability thinking has deepened, and perspectives broadened. Student feedback highlights the positive effect of integrating storytelling for engagement in independent online learning.

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Conclusions

The activation of the students' sustainability competences is demonstrated by the innovative solutions they present to complex challenges in the field of sustainable health. Graduates equipped with such skills will be needed for sustainability transformation and the promotion of planetary health.

Literature

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oral

Abstract ID = 1705

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14/05/2024 - 15:30-16:30 - 1st Session Oral Presentations x 4

THE USE OF CHATGPT FOR LEARNING AMONG NORWEGIAN PHARMACY STUDENTS – A RANDOMIZED TRIAL STUDY

Kristian Svendsen

UiT - The Arctic University of Norway

Danial Umer

Kjell H. Halvorsen

Mohsen Askar

Introduction

Traditional study methods for students at the pharmacy program involve didactic lectures, experimental laboratory sessions, group work, seminars and textual studies. Digital tools including AI chatbots, such as ChatGPT, have received a growing interest from students since these tools took the world by storm in November 2022. However, despite their increasing popularity, we know little about their efficacy in achieving learning outcomes. This randomized study provides objective insight about the effect of ChatGPT on learning outcomes for pharmacy students.

Method

We conducted a randomized trial where participants were allocated to either using traditional learning resources (controls) or supplementing these resources with ChatGPT (intervention). Eligible participants were bachelor and master students in pharmacy. Following a pilot study with seven students, we randomized 31 participants to the control and intervention arms. The trial consisted of a 30 minute knowledge test with 11 questions from the pharmacy curriculum, a 45 minutes study interval, followed by retesting. Students was not informed that the knowledge test administered was identical before and after the study interval. In addition, all students answered a questionnaire regarding study habits, knowledge about ChatGPT and attitudes to the use of AI tools.



Results

A total of 31 participants, 14 bachelor- and 17 master students participated. The overall score for all participants was 41.7% (SD 16.4%) on the knowledge test before the study interval, and 56.5% (SD 19.9%) after the interval. The average improvement on the knowledge test was 10.9% for the control group and 18.9% for the intervention group ($p=0.04$).

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Conclusions

Preliminary analyses show a significant increased improvement in test scores among ChatGPT students compared to students using only traditional learning resources.

Literature

2024 EAFP annual conference Abstracts

oral

Abstract ID = 1708

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Chat bots in the learning process – a student's perspective

Manuela Morato

Faculty of Pharmacy of the University of Porto, Portugal

Clara Quintas

Introduction

Chat bots (CB) are transforming the learning process with advantages and challenges. The aim of this study was to evaluate the impact of using CB in a learning activity (LA) on the awareness of the students for those advantages and challenges.

Method

162 students of the Pharmacology II course of the Integrated Master in Pharmaceutical Sciences of the Faculty of Pharmacy of the University of Porto (FFUP), Portugal (4th year, 1st semester) were challenged to pose a question to a CB and confront the answer with classic sources of scientific information. At the end of the semester, an online questionnaire was delivered. Data was analysed descriptively.

Results

55 students answered the questionnaire. Most (84%) had used CB, including in the Integrated Master in Pharmaceutical Sciences (60%), and considered to use it again (69%). Chat GPT was the mostly used CB (82%). Most students (82%) found the CB answer as consistent but generic. Development of critical thinking (75%) was the major contribution pointed out by the students, followed by a personalized learning experience (47%). The main advantages of CB in learning identified were the easy and quick access (98%), the real-time response (87%) and the guidance in searching information (73%), in opposition to the motivation (5%) and involvement (13%) in the curricular unit. The students mainly highlighted the need to confirm the information given by the CB with more credible information sources (82%) but also



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referred the value of critical thinking and/or prior knowledge on the subject (20%), and the importance of formulating the question correctly (15%).

Conclusions

Pharmacology II students of the Integrated Master in Pharmaceutical Sciences of the FFUP are prone to use CB in the learning process. The LA proposed contributed to promote the awareness of the students for the advantages and challenges of using CB.

Literature

2024 EAFP Invited Speakers' Presentation Abstract

Abstract ID = 1930

15/05/2024 - 09:00-09:45 - 2nd Session - Invited speakers

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Innovation in Pharmacy Education in the digital era: opportunities and challenges

Luciano Saso

Faculty of Pharmacy and Medicine, Sapienza University of Rome

Introduction

Since 1993, the internet revolution made available for universities students and professors an increasing amount of information and data. After 30 years, in many cases, universities still teach in a very traditional way while it would be useful to adapt to the new digital environment making the students to learn the main elements of each subject without asking them to learn by heart details that they will be able to easily find on the internet. As already happens in some universities, in some cases, students could be allowed to use devices connected to the internet during the exams, formulating complex questions which require a very good knowledge of the subject without necessarily knowing all technical details. Indeed, any professional during his or her career will use the internet to search for information to prepare for any activity. Internet allows also to easily “flip the classroom”, i.e. to ask the students to prepare at home before coming to the class just to ask questions to the teacher and discuss with the other students about the assignment. These developments are also creating huge ethical and philosophical issues and there is an urgent need to make pharmacy and other study programmes more interdisciplinary. To create space for new disciplines in the pharmacy curriculum it would be beneficial to try to remove some technical information whenever possible.

More recently, artificial intelligence (AI) started to provide new powerful tools in many health professions including pharmacy. The impact of AI is already very significant in several medical and pharmaceutical fields such drug discovery & development[1] and toxicology[2]. AI will soon perform many activities done today by humans and that should be taken into account when preparing our graduates. AI will not replace immediately humans” but, most probably, humans using intelligent machines will replace soon humans not using them”. Graduates of the Faculties of Pharmacy have a strong scientific background which includes subjects like medicinal chemistry, biochemistry, pharmacology and other



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important ones. Thus, they can pursue several different job opportunities. Positions in community or hospital pharmacies, basic and clinical research, careers in pharmaceutical companies and clinical research organization (CRO) related to clinical monitoring, pharmacovigilance, regulatory affairs, quality assurance, manufacturing, etc[3]. However, the labour market is changing quickly due the aforementioned digital revolution and the pharmacy curriculum should be constantly adapted to make our graduated well prepared to face the current professional challenges and ready to continue to learn for all their life.

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2024 EAFP Invited Speakers' Presentation Abstract

Abstract ID = 1931

15/05/2024 - 09:00-09:45 - 2nd Session - Invited speakers

15

Team-Based Learning in biochemistry with large classes

Knut Teigen

University of Bergen

Karl Johan Tronstad

Introduction

Team-Based Learning (TBL) offers a dynamic approach to teaching biochemistry in large class settings, fostering active engagement, critical thinking, and collaboration among students. In this presentation, we explore the principles and practical implementation of TBL, highlighting its effectiveness in promoting deep learning and conceptual understanding of complex biochemical concepts. Additionally, we discuss the use of ChatGPT to draft material used in TBL, leveraging AI technology to generate high-quality content. Through a combination of readiness assurance processes and application activities, TBL empowers students to take ownership of their learning while benefiting from peer interaction and support.

Method

Results

Conclusions

Literature

2024 EAFP annual conference Abstracts

oral

Abstract ID = 1605

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15/05/2024 - 09:45-10:30 - 2nd Session - Oral Presentations x 3

NARRATIVE-BASED DIGITAL LEARNING PLATFORM: A DYNAMIC APPROACH TO TEACHING PHARMACY HISTORY THROUGH PHARMACISTS' STORIES

Lavin Kadir

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Camilla Foss

Marit Waaseth

Lone Holst

Marianne Kollerøs Nilsen

Marthe Rambøl Bjørknes

Anne Gerd Granås

Introduction

NARRATIVE-BASED DIGITAL LEARNING PLATFORM: A DYNAMIC APPROACH TO TEACHING PHARMACY HISTORY THROUGH PHARMACISTS' STORIES

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5. Nord University, Namsos, Norway

Norwegian pharmacy students lack adequate teaching in pharmacy history compared to other European countries. Historical insight is essential for understanding our current professional challenges. However, we lack appropriate teaching tools which give students vital insights



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into pharmacists' experiences of their professional roles and functions in society over time. We saw a need to change our teaching approach to facilitate their historical understanding of the profession's development and societal role.

Method

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The co-authors of this abstract analyzed film/audio recordings and images from interviews with 33 elderly pharmacists. The emerging themes were categorized and further developed into teaching modules on a Canvas learning platform, accompanied by suitable film/audio clippings from the interviews and additional assignments.

Results

The modules are available on a shared Canvas platform for collaborative learning. They are aligned with the overarching pharmacy curriculum. Each university can adjust to local learning objectives. Examples of topics are pharmaceutical emergency preparedness, fraudulent prescriptions, human and veterinarian antibiotics, drug information and patient counseling, pharmaceuticals, ethical dilemmas, and clinical pharmacy. Lecturers can thus easily import one or more modules from Canvas and accordingly integrate pharmacy history into their courses.

Conclusions

This marks the inaugural collaboration including five universities that teach pharmacy in Norway. We have established a unified digital learning repository. We are enthusiastic about disseminating this knowledge to pharmacy students, graduate pharmacists, and academic staff.

Funding: [Stiftelsen til fremme av norsk apotekfarmasi](#)

Literature

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oral

Abstract ID = 1635

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15/05/2024 - 09:45-10:30 - 2nd Session - Oral Presentations x 3

THE ERASMUS BLENDED INTENSIVE PROGRAM “CREATING SAFE COSMETICS PRODUCTS”: NEW KNOWLEDGE AND NEW ACADEMIC CONNECTIONS FOR PHARMACY STUDENTS

Ramune Morkuniene

Lithuanian University Of Health Sciences

Valdas Jakštas

Jurga Bernatoniene

Introduction

Community pharmacies offer a variety of skin care products, also some pharmacies produce their own product lines. Consumers prefer to shop cosmetics in pharmacies for a safety and an expert advice. As consumers become more interested in cosmetic innovations, pharmacies are adapting to meet the demand. So new knowledge on safe cosmetic products is relevant for pharmacy students. We aimed to develop elective course in Pharmacy studies to enhance student's knowledge and skills on cosmetic products, as well as international experience.

Method

The Erasmus blended intensive program (BIP) “Creating safe cosmetics products” was implemented in the Lithuanian University of Health Sciences, Faculty of Pharmacy, together with partners from Medical University of Bialystok, University of Tartu, San Jorge University, Masaryk University and Medical University of Lodz. The program combines physical mobility with a virtual part and uses innovative ways of learning.

Results

The purpose of the course was to provide knowledge and develop practical skills related to the general principles of cosmetic products, safety evaluation, cosmetics ingredients, their influence on the technological functionalization. In addition, the documentation regulating



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cosmetics, as well as differences in legal aspects in the countries of the European Union were transferred. After completing the course, students were able to characterize the properties of the ingredients, to apply the general principles of technology in the manufacture of different types of cosmetics, to evaluate information provided on the label of the cosmetic product. Students were introduced to simulation laboratory techniques to perform scalp, hair and face analysis. Learning outcomes were assessed through project report. All students evaluated the BIP “Creating safe cosmetics products” especially positively.

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Conclusions

The Erasmus BIP “Creating safe cosmetics products” gives Pharmacy student’s strong scientific background for safe use of cosmetic products, enhances practical skills on cosmetic technologies and promotes international cooperation.

Literature

2024 EAFP annual conference Abstracts

oral

Abstract ID = 1715

20

15/05/2024 - 09:45-10:30 - 2nd Session - Oral Presentations x 3

A BLENDED INTENSIVE PROGRAM TO EXPLORE ONLINE AND
ONSITE THE CAREER OPPORTUNITIES IN PHARMACY,
BIOTECHNOLOGY AND NUTRITION & DIETETICS.

Paola Otero Gómez

Facultad de Farmacia. Universidad San Pablo-CEU. CEU Universities

Carmen Pérez-García
Carolina Hurtado-Marcos
Rocío de la Iglesia González
Fernanda Rey-Stolle Valcarce
Francesca Spyraakis
Sonja Visentin
Giulia Caron
Cinzia Margherita Berteà
Eric Morel
Dorine Bonte

Introduction

The degrees of Pharmacy, Biotechnology and Nutrition & Dietetics offer diverse career paths, yet students often struggle to navigate their future options. Moreover, today's job market increasingly values professionals with international exposure and proficiency in digital communication, intercultural collaboration, and teamwork. To address these challenges, we developed an Erasmus+ Blended Intensive Program (BIP) where students from Turin, Paris-Saclay, and CEU-San Pablo Universities collaborated to explore global career opportunities within their degrees.

Method



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This BIP included the following online activities: i) an introductory session with icebreaker and intercultural activities, ii) online team meetings in which professors from the 3 Universities guided and supervised the students work, iii) interviews of the students' teams with 3-5 professionals of Pharmacy, Biotechnology or Nutrition & Dietetics. Based on their research, students prepared oral presentations delivered at a hybrid-format Congress hosted at Paris-Saclay University. Supported by Erasmus+ funding, some students and professors from Torino and CEU-San Pablo Universities travelled to Paris to participate onsite in the Congress; during this trip they also had the opportunity to visit institutions where the students could work in the future and to participate in cultural activities.

Results

The BIP engaged 3 universities, 35 professors, 79 students, and 61 professionals from 8 countries and 54 institutions. Over 300 individuals from 26 countries participated in the Congress. Nineteen students visited Paris, exploring hospitals, research centers, and pharmaceutical and biotech companies. During this trip they also participated in 3 different cultural activities to know more about Paris history and traditions. Over 90% of students reported improved soft skills, enhanced employability, and increased motivation for international work. 98% found the BIP beneficial for their professional futures.

Conclusions

These outcomes underscore the value of the BIP programs in enhancing students' employability within a multicultural context.

Literature

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oral

Abstract ID = 1657

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15/05/2024 - 14:30-15:15 - 4th Session Oral Presentations x 3

Development of Advanced Clinical Pharmacy Practice and Research
Modules in Scotland: Moving with the Times

Natalie Weir

University of Strathclyde

Tanja Mueller
Amanj Kurdi
Marion Bennie

Introduction

For over 10 years, the University of Strathclyde (Scotland) has delivered an MSc in Advanced Clinical Pharmacy Practice to prepare pharmacists for senior leadership and clinical roles. The MSc required updating considering changes in the pharmacy landscape (e.g. increased prescribing rights), the COVID-19 pandemic (e.g. work pressures, remote working) and to align with the curricula of the professional membership body. The aim was to review and revise the MSc by engaging with key stakeholders.

Method

Focus groups, interviews and email communications were conducted with stakeholders during October and November 2021. Short Life Working Groups (SLWGs) were established to develop new teaching content, utilising the Backwards Course Design approach and incorporating various teaching and learning theories (e.g. cognitivist and constructivist theory).

Results

In total, 36 stakeholders participated in the review, including representatives from NHS Education and Training (n=8), Senior National Health Service Management (n=5), past MSc students (n=13), and practicing pharmacists in community (n=2), primary (n=2) and acute (n=6) care. Participants were supportive of focusing on research and clinical components, which were considered 'core' for



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pharmacy practice. However, the original research content was conceptually challenging for students, whereas the clinical aspects could include more advanced content to allow graduates to think critically in complex areas and be able to manage risk. Participants were supportive of a blended delivery model, utilizing face-to-face and online teaching. Considering workload challenges of completing an MSc, there was a strong desire for students to be able to complete single modules.

Conclusions

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SLWGs were established to develop two new 'Research Fundamental' modules, and a 'Clinical Decision Making' module, utilising a blended and hybrid delivery method. These were launched in 2023/2024 as standalone modules, and the vision is for these to sit alongside modules on Management, Leadership and Education. Reflections of delivering these advanced modules will be presented at the conference.

Literature

2024 EAFP annual conference Abstracts

oral

Abstract ID = 1662

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INCORPORATING EXPERIENTIAL LEARNING IN A PHARMACEUTICAL
CHEMISTRY STUDY UNIT INCORPORATING EXPERIENTIAL LEARNING
IN A PHARMACEUTICAL CHEMISTRY STUDY UNIT

Janis Vella Szijj

University of Malta

Lilian M Azzopardi

Introduction

First year students reading for a degree in Pharmaceutical Technology follow a study unit in Pharmaceutical Chemistry of 8 ECTS. The study unit was delivered via lectures where principles and applications of pharmaceutical analysis are discussed. As a result of a quality review and stakeholders feedback, the study unit was updated to include experiential learning sessions.

Method

Three visits to a local analytical testing and batch-release facility were organised. Sessions were planned to contain activities related to sample preparation, chromatographic analytical procedures and interpretation of chromatographic results. The practice-activities were planned to align with the development of knowledge during the lectures. During the practice activities, the students were supported to reflect on the application of knowledge. Students were asked to rate the experiential learning sessions on a 5-point Likert scale.

Results

Visits gave students real-life exposure to theoretical concepts covered during lectures and gave them the opportunity to observe protocols and techniques applied in the quality control of oral



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solid dosage forms. During the sessions, students participated in chromatograms interpretation and discussion of data construed to attain qualitative and quantitative information.

Six out of seven students rated the sessions where all students found the sessions to be well organized and felt that the visits helped them gain a better understanding of local pharmaceutical companies. Five students felt that the number of visits was appropriate. Four students stated that visits helped support what they learnt during lectures and five students would recommend such visits to other students.

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Conclusions

The positively evaluated experiential sessions offered to students a firsthand into the application of knowledge in the pharmaceutical industry setting and helped them complement their academic knowledge. Engaging students in experiential sessions can help equip and prepare them for potential careers in pharmaceutical quality control and research.

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oral

Abstract ID = 1738

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HOW CAN WE IMPROVE STUDENTS' INTRODUCTION TO HIGHER EDUCATION?

Lisa Fredriksson Carreras

Uppsala university

Emma Lundkvist

Introduction

Previous studies on academic socialization highlight challenges during the transition from high school to university and the importance of supporting students in this process. Successful factors include teacher-led time for academic introduction, adaptation of previous study techniques, and understanding the organization (1). Furthermore, the importance of interaction is emphasized, both among students and between students and faculty (2).

At the Faculty of Pharmacy in Uppsala, we have worked in recent years to strengthen the introduction to higher education in our pharmacy programs.

Method

A review of several articles on the topic and materials from other institutions was conducted to identify potential measures. We also discussed possible components with teachers as well as the Pharmaceutical Student Union.

Results

From the review of the literature and the discussions, we developed a series of activities to enhance the introduction to university studies. The overall purpose of the resulting "Introduction to Higher Education" is to increase both retention and throughput, as well as provide students with better a foundation to succeed in their studies. The more extensive new activities are two mandatory workshops. The first workshop address university studies in a



broad sense. The second workshop deals with more tricky study situations that the students may encounter. The aim of these workshops is to create increased community and understanding of the obligations and rights that students have.

Conclusions

The new activities that have been implemented have generally been well-received by students. However, it remains to be seen whether they have the desired effect on throughput and retention.

Literature

1. Wismath, S., & Newberry, J. (2019). Mapping Assets: High-Impact Practices and the First-Year Experience. *Teaching & Learning Inquiry*, 7(1), 34-54
2. O.J. Webb & D. R. E. Cotton (2018) Early withdrawal from higher education: a focus on academic experiences, *Teaching in Higher Education*, 23:7, 835-852

2024 EAFP Invited Speakers' Presentation Abstract

Abstract ID = 1927

16/05/2024 - 09:00-09:45 - 5th Session - Invited Speakers

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Adapted admission for pharmacists with a master's degree from outside the EU/EEA – A tailor-made program at the Department of Pharmacy, University of Oslo

Anne Gerd Granas

University of Oslo

Introduction

According to data from the Norwegian Directorate of Health, almost half of all pharmacists that were granted new authorization to practice in Norway in the last decade, had a pharmacy degree from abroad. An important pull-factor for this migration is the many vacant jobs within community pharmacy.

Many of the fully qualified pharmacist with a master's degree in pharmacy from a country outside the EU/EEA, are only recognized as “Bachelor of Pharmacy / Prescriptionist (Reseptarfarmasøyt) by the Directorate of Health. It is therefore important for those who want to become community pharmacy managers / Apoteker, to take further courses at university level to (re)gain the title as Master of Pharmacy. Only then, the Department of Health will authorize them as Pharmacist (Provisorfarmasøyt).

At the Department of Pharmacy, University of Oslo, a tailor-made program was launched in 2023 for pharmacists with a master's degree from countries outside the EU/EEA. In this talk, the requirements for admission, the structure of the course, and some experiences with this program will be presented.

Method



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Literature

<https://www.helsedirektoratet.no/english/authorisation-and-license-for-health-personnel?path=24-2>

2024 EAFP Invited Speakers' Presentation Abstract

Abstract ID = 1928

16/05/2024 - 09:00-09:45 - 5th Session - Invited Speakers

30

Counselling first hand: Understanding the customer and yourself through mentalizing – promising results from the evaluation of an education programme for pharmacy workforce to support patient- centred counselling.

Charlotte Verner Rossing

Pharmakon, Danish college of pharmacy practice

Introduction

Background:

One of the core activities at community pharmacies is counselling patients on medication to support correct use and to contribute to health promotion. Dialogue is known to be key to ensure patient-centred counselling, but studies show that pharmacy workforce rarely include patients' perspectives in counselling, especially if they sense that the patient or they themselves will be emotionally affected.

A theory-driven education programme was developed with the aim to increase the pharmacy workforce's mentalizing abilities and enable them to be aware of and navigate their own and patients' emotions in a counselling situation. The topics in the programme include the mentalizing mindset, mentalizing communication and pharmacy practice. The 2,5 ECTS programme was developed in Denmark and tested in Denmark and the Netherlands. The programme was developed with a user-driven workshop format that included perspectives from patients, pharmacy workforce and proprietors.

Purpose:

The aim was to evaluate participants' knowledge of mentalizing in a pharmacy practice context and their competencies and benefits of transferring this to knowledge about how to act and communicate in mentalizing ways in pharmacy encounters, with the potential of establishing patient-centred counselling.

Method

In Denmark, 28 participants from 11 community pharmacies participated. A mixed methods design based on the Kirkpatrick levels of evaluation inspired the evaluation. Data comprised written reports with 36 qualitative questions answered by participants upon completing the programme, as well as quantitative measurement of their Level of Emotional Awareness, their Job Satisfaction Measure before and after the programme and a Course Experience Questionnaire after the programme.

Results

The qualitative evaluation revealed three themes: 1) “Awareness of emotions and communication skills is an important element when mentalizing is the goal”, 2) “It’s far more than just a dispensing situation – I now tune into the patient”, 3) “Don’t have to hide behind the screen any longer”. The quantitative evaluation showed: 1) a significant increase in awareness of mental states ($p < 0,001$), 2) a significant improvement of job satisfaction regarding salary ($p = 0.01$), prospects ($p = 0.04$) and standards of care ($p = 0,004$), 3) that most participants agreed (48.8%) and strongly agreed (39.1%) that they were satisfied with the education programme.

Conclusions

The education programme promoted the participants’ awareness of mental states and mentalizing communication skills, enabling them to centre the interaction around the patients’ perspectives. The results are promising to support pharmacy workforce to act truly patient-centred in counselling desk meetings and to prevent or reduce job-related stress and burnout.

Literature

References

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2024 EAFP annual conference Abstracts

oral

Abstract ID = 1690

32

16/05/2024 - 09:45-10:30 - 5th Session - Oral Presentations x 3

THE IRRUPTION OF AI : CHANGING ACTIVITIES & EVALUATION METHODS

Aina SURROCA REBES

FUNDACIO BLANQUERNA (UNIVERSITAT RAMON LLULL)

Concepcio MESTRES MIRALLES
M.pilar GASCON LECHA

Introduction

Artificial Intelligence (AI) has undergone over phenomenal progress in the last years. Many different tools are now available and well known by students. They can provide positive information but , in some ways , they must be taken in consideration when designing activities and evaluating methods.

Objectives

Update activities and new evaluation methods according the AI new scenario.

Method

All teachers of Health Science School of The Ramon Llull University have received training lectures & workshops to update their knowledge about AI sources. After that, some new activities and evaluating methods were updated for this 2023-2024 course.

Results

In the pharmacy degree changes were made at:

- New activity at 1st grade in interdisciplinary seminar subject



- Updated evaluation methods of activities at 2nd grade in the subject History, Deontology and Pharmaceutical laws, giving higher importance to the oral presentation of them (60% versus 40% of the written part of the activity)
- Updated evaluation methods of activities at 5th grade related to those to be performed during Supervised placements. Clinical reviews mandatory for students are now to be presented ready to publish as a scientific article . Introducing Objective Structured Clinical Examinations (OSCEs) is also an item when evaluating this subject.

Conclusions

AI has to be taken in consideration both in how we evaluate the students in activities when AI can easily give results . Other than that , we should consider the opportunity to think about how to use these tools to compare them with the classic and scientific sources and promote the critical and thinking criteria. For teachers and professors training and updating in new methodologies and being updated regarding all AI new tools developed has become mandatory to ensure a high level standard in the quality of our teaching.

Literature

2024 EAFP annual conference Abstracts

oral

Abstract ID = 1707

34

16/05/2024 - 09:45-10:30 - 5th Session - Oral Presentations x 3

THE ROLE OF DIVERSITY, EQUITY AND INCLUSION IN IMPROVING PHARMACISTS' WORK LIFE

Caroline Gaither

Univeristy of Minnesota, College of Pharmacy

Jon Schommer

David Mott

William Doucette

Introduction

Diversity, equity and inclusion (DEI) initiatives are found in United States (US) Schools and Colleges of Pharmacy. The role of these variables in the work life of our graduates is unknown. The National Pharmacist Workforce Study included questions related to DEI characteristics of work settings in 2022. The purpose of this analysis is to determine if DEI variables influence pharmacists' work-life.

Method

An on-line questionnaire was developed using the Qualtrics Survey platform. A sample of 93,990 (23% of all licensed pharmacists in the US) was randomly selected from a database maintained by the National Association of Boards of Pharmacy Foundation. Subjects were contacted up to four times by email. DEI constructs were assessed using multiple items rated on a five-point Likert-type response format and summed across items. Work life variables included previously used items measuring job satisfaction, organizational commitment, professional fulfillment and job and career turnover intentions. Year licensed and employment setting were included. Data were analyzed using descriptive statistics, correlations and multiple linear regression via SPSS version 28.



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Results

A total of 6,545 pharmacists clicked on the survey link and 4,947 submitted a survey response, for an overall response rate of 5.3%. The majority of respondents practiced in the community setting (49%) and obtained licensure after 1997 (51%). Both equity and inclusion were positively associated with job satisfaction, organizational commitment and professional fulfillment while diversity had no or small negative associations. Equity and inclusion were negatively associated with job and career turnover intentions. Fewer years licensed and working in a community setting were associated with greater turnover intentions and less satisfaction, commitment and professional fulfillment.

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Conclusions

The role of diversity needs continued investigation. Equity and inclusion are important work characteristics that warrant attention by educators and employers to improve pharmacists' work life.

Literature

2024 EAFP annual conference Abstracts

oral

Abstract ID = 1726

36

16/05/2024 - 09:45-10:30 - 5th Session - Oral Presentations x 3

Specialty Certification in Academic and Practice

Michael Rouse

American Pharmacists Association

Introduction

The world is changing; new technologies and therapies are evolving, and the delivery of healthcare is becoming more complex. Practitioners, educators, and learners are expected to master an ever-broadening scope of knowledge. The Pharmacy profession's approach has traditionally been to prepare "generalist" practitioners, and the majority of practitioners continue to practice as generalists. In some countries, however, more specialized or "focused" areas of practice have emerged in response to patient and societal needs. Some countries are now experiencing an oversupply of generalists and a shortage of pharmacists with needed specialist knowledge and competence.

In the basic and pharmaceutical sciences that serve as Pharmacy's foundation, specialty areas have long existed; the range continues to expand as new technologies and areas of scientific knowledge emerge. In alignment with trends in practice, specialty areas in the clinical sciences are also emerging. Apart from the traditional credentials, such as Master's and PhD degrees, speciality certifications are now being pursued to provide validated evidence of knowledge and competence in a specialty area(s).

As the focus on developing competence to provide patient care has grown in pharmacy education, the composition of academic staff at faculties of pharmacy has also changed, with a greater number of academic staff from the clinical sciences, ideally with appropriate experience in patient care settings. However, frequently these individuals do not have the credentials that are traditionally required in higher education, typically a PhD degree. This



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has been a challenge, but “equivalency” systems for clinical/pharmacy practice faculty members have been adopted in several countries.

The presentation will discuss a conceptual framework describing how practice and competence can progress throughout a career in terms of the breadth of focus and depth of skills and experience. The presentation will discuss the role that specialty certification is now playing in academia and practice.

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Method

Results

Conclusions

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1614

38

16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme I: RELEVANCE

HEALTH INDICATOR MEASUREMENT IN THE CURRICULUM OF THE TALLINN HEALTH CARE COLLEGE PHARMACY PROGRAM

Merle Kiloman

Tallinn Health Care College

Lilian Ruuben

Introduction

The overload of primary healthcare system, aging population, and increasing health awareness among Estonian residents have in recent years led to a growing interest in measuring health indicators in pharmacies. This has created a demand for pharmacists capable of providing quality health indicator measurement and interpretation services. As a result, the curriculum for pharmacy students includes a 2 ECTS course on measuring and interpreting primary health indicators.

Method

To prepare and design the course, the need and possibilities for providing such a service in pharmacies were studied, along with experiences of other countries in providing similar services. The experiences of other professions and existing treatment guidelines in Estonia and other countries were taken into account. Guidelines for conducting measurements to ensure the provision of the service were developed in collaboration with the Pharmacy Quality Guidelines Working Group.

Results

Since 2016, the pharmacy curriculum has included teaching primary health indicator measurement. The course covers theoretical and practical aspects of measuring and interpreting blood pressure, body composition, and values from capillary blood such as glucose, cholesterol, hemoglobin, and vitamin D. Additionally, students learn to advise



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pharmacy visitors on the results. Based on the course and subsequent continuing education, it can be said that the course is considered very important and necessary by both students and working pharmacists. In the near future, a study is planned to survey both service providers and consumers in pharmacies regarding satisfaction with the quality of service.

Conclusions

Measuring primary health indicators has proven to be a highly demanded and necessary subject. It certainly has the potential to evolve into a larger course covering other primary healthcare services offered in pharmacies in the future.

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1666

40 16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme I: RELEVANCE

DEVELOPING A COURSE ON PHARMACOECONOMICS

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University of Malta

Maresca Attard Pizzuto
Anthony Serracino-Inglott

Introduction

Pharmacoeconomics (PE) is crucial for medication assessment and pharmaceutical reimbursement decisions, requiring specialists with proper training and education to achieve optimal results. The aim is to develop a course on Pharmacoeconomics.

Method

Information on Pharmacoeconomic courses was gathered and compiled from published reports. A search was conducted using the HyDi, Pub Med, Google Scholar, ISPOR, and Google databases. In the undergraduate and graduate pharmacy curriculum, both mandatory and elective pharmacoeconomic courses were considered. A focus group consisting of pharmacists and pharmaceutical entrepreneurs was set up to assess the needs within the area of Pharmacoeconomics to help in the development of the course.

Results

The identified course topics are the following:

1. Pharmacoeconomics principles: Definition, theory, methods, and applications
Pharmacoeconomics as a means to access the therapeutic benefits provided by contemporary medications.



2. Pharmacoeconomics evaluation: Drug therapy costs and benefits, aiding resource allocation and utilisation. Pharmacoeconomics as an integral part of health policy decision-making, clinical trials, accessibility to medicines and the quality, safety, and efficacy of medicines.
3. Pharmacoeconomics techniques: Cost-minimisation, cost-effectiveness, cost-utility, and cost-benefit analysis with special reference to developing countries.
4. Pharmacoeconomics perspectives: Patient, prescriber, provider, payer and societal.
5. Pharmacoeconomics impact on health systems: Application of Pharmacoeconomics techniques.

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The focus group discussed issues of pricing of medicines, government formulary structure, and initiatives for the allocation of public funds.

Conclusions

Pharmacoeconomics education is offered in most institutions and pharmacy schools. The fields of study taught in various universities are varied, as do the amount of time dedicated to pharmacoeconomic studies. Although most pharmacy schools offer Pharmacoeconomics courses, guidelines are necessary for specific components and themes that need to be exposed to students.

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1672

42 16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme I: RELEVANCE

INCREASING THE SKILLS OF PHARMACIST BY INNOVATING
TEACHING PHYSIOLOGY AND PATHOPHYSIOLOGY AT UNIVERSITY
OF VETERINARY MEDICINE AND PHARMACY IN KOŠICE, SLOVAKIA

Zita Faixová

University of Veterinary medicine and pharmacy in Košice, Slovakia

Dominika Faixová
Renáta Szabóová
Zuzana Maková
Ján Kyselovič

Introduction

FIP in 2022 published document „FIP Statement of Policy The role of pharmacy professionals in point-of-care testing“, in which supported the provision of health screening services in community pharmacies. In the document is stated that pharmacy academic institutions and providers of continuing professional development training courses should include in their curricula basic knowledge and training related to conducting tests for health screening, the use of equipment, the interpretation of results.

Method

In accordance with this document and the new competencies of pharmacist, teachers at the University of Veterinary Medicine and Pharmacy in Košice prepared the project which aimed to increase the skills and competences of the pharmacists by introduction screening physiological, hematological and biochemical examinations into practical teaching, which can be carried out in pharmacies.

Results

These examinations are suitable for the provision of primary health care for person without symptoms of disease by health services based on the provision of complex analysis by devices and tests available in pharmacies intended for preventive diagnosis and also as a part of secondary prevention when monitoring the safety and effectiveness of pharmacotherapy in sick persons. The information provided of etiology of diseases and biochemical processes associated with their pathology in connection with alterations in parameters will be



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effectively applied in the overall assessment of the health status of the pharmacy's clients. The Practical Manual is to cover methodological procedures of tests.

Conclusions

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Health screening services expand the role of pharmacy professionals as healthcare providers. Performing health screening tests in a pharmacy has both health and economic benefits. Maintaining good health, and early detection of disease significantly reduces the need for health care expenditures and expands the capacity of health care systems to respond to the demands of the population.

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1673

44

16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme I: RELEVANCE

EFFECT OF THE EXAM PERIOD ON EATING HABITS OF PHARMACY STUDENTS

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University of Veterinary Medicine and Pharmacy in Košice

Zita Faixová

Introduction

Healthy eating is essential for maintaining physical and mental health, at the same time it is important for preventing the development of non-communicable lifestyle diseases.

Method

Our work was focused on analyzing the eating habits of pharmacy students of University of veterinary medicine and pharmacy in Košice and tracking the impact of academic stress on the intake of food and substances of natural origin that students use to relieve symptoms of academic stress and increase concentration. Our survey involved 212 pharmacy students (87.7% women and 12.3% men).

Results

The results showed that most students rate their level of stress during the exam period as extreme, which may be related to the development of digestive disorders and problems with sleep and concentration. During the exam period, 50.9% of students consumed less food and 25% more, while under the influence of academic stress, up to 49.5% of students consumed snacks more often and 46.7% of respondents experienced an increased intake of sugary foods. 78.3% of respondents said that they experienced chronic digestive problems during their studies and nausea, diarrhea and stomach cramps were mentioned as the most common. To



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solve these problems from substances of natural origin, respondents most often used peppermint and lemon balm. Of the herbal drugs to increase concentration, students preferred ginkgo leaf, and for calming and sleep problems, lemon balm leaf.

Conclusions

The results of our work show a significant relationship between academic stress and diet among pharmacy students, so it is important to further investigate what the long-term health implications of these changes are. Effective strategies to manage academic stress and promote healthy eating habits among students also need to be identified.

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Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1676

46 16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme I: RELEVANCE

MENTORING, DEVELOPMENT PLAN AND PRACTICAL TRAINING:
STRATEGIES TO HELP PHARMACY STUDENTS TO FULLY FLOURISH

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Guadalupe Beitia
Pedro González-Muniesa
María Javier Ramírez

Introduction

The European Higher Education Area led to the incorporation of transversal skills in the training of graduates, which are the key to attaining adequate professional development. Nowadays, although this is still very relevant, it is not enough for our students to flourish, we also need to include the promotion of emotional well-being. Aim: To design and implement different strategies to help pharmacy students flourish and become pharmacists who enjoy developing their profession at the service of others.

Method

A strategy developed based on the following three pillars:

1) Mentoring: Every first-year student is assigned a teacher as a mentor who accompanies them, advising academically and personally. This program is supported by the University, which offers specific training to mentors in different areas, as helping students manage frustration. Furthermore, mentors and mentorees have access to the Program Tu&Co, a tool that allows them to improve professional skills. 2) Development plan: Every academic year is composed of one or two sessions. First, a 360° full vision of the degree and a resilience workshop; Second, a reflection session to value the student's protagonism and an exhibition of their volunteering projects; Third, an honesty workshop; Fourth, servant leadership is introduced and fifth, a workshop where the student identifies areas for improvement in



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transversal skills and designs a personalized improvement plan. 3) Practical training and contextualized learning of the degree subjects are implemented to train transversal skills and attitudes in the professional context.

Results

This strategy began in 2016 and has gained relevance, until it became a complementary training of great interest. However, student engagement and lack of tools to measure performance remain limiting factors in which we currently work.

Conclusions

This strategy emerges to support the comprehensive training of the students to enable them to reach their maximum development as people and professionals.

Literature

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poster

Abstract ID = 1677

48 16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme I: RELEVANCE

EXPLORING PHARMACY LEADERSHIP COMPETENCIES AND PERCEPTIONS THROUGH THE LENS OF KUWAITI STUDENTS: A CROSS-REGIONAL STUDY

Moudhi Aman

UON

Naoko Arakawa
Claire Anderson

Introduction

As the pharmacy profession evolves, the need for future leaders equipped with essential leadership competencies becomes more critical. The importance of including leadership education in pharmacy education has been called for in some countries but has not been implemented at similar levels across nations yet. This study explored Kuwaiti students' views on leadership, by comparing their experiences in local and international educational settings to assist in advancing leadership education in pharmacy in Kuwait.

Method

Focus groups were conducted with pharmacy students who are educated in Kuwait and those who are educated in the UK. In Kuwait, participants were recruited via lecture announcements at Kuwait University, while Kuwaiti students in the UK were recruited at the University of Nottingham via email. Audio recordings of the discussions were transcribed and analysed thematically using NVivo software.

Results

Five focus groups (n = 20, 3-6 participants each) were performed from October 2023 to February 2024. Three key themes were identified; 1) Leadership awareness and confidence:



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both groups displayed leadership knowledge, yet students abroad reported higher confidence in applying it due to their program structure. 2) Curriculum and preparation: students abroad perceived their programs as better equipping them for leadership roles. 3) Challenges in the Kuwaiti sector: both groups highlighted similar challenges, including a lack of clear professional vision, inadequate policies to support leadership development, and uncertain community expectations. Addressing these themes could enhance leadership development and empower future Kuwaiti pharmacy professionals.

Conclusions

This qualitative study identified three key themes highlighting the influence of the educational environment on leadership perception. Addressing the perceived challenges reported within this study, particularly within Kuwait's sector, can enhance leadership development for the pharmacy profession. This study's preliminary results contribute to the ongoing development of a leadership framework for the Kuwaiti pharmacy profession, aiming to prepare future Kuwaiti pharmacists for the evolving landscape.

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1680

50

16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme I: RELEVANCE

IMPLEMENTATION OF A WORK LIFE-ORIENTED APPROACH TO THE NEW CLINICAL PHARMACY CURRICULUM

Ville Valkonen

University of Eastern Finland

Miia Tiihonen

Introduction

The University of Eastern Finland (UEF) School of Pharmacy has introduced a new clinical pharmacy degree program (MSc Pharm.) in response to the changing needs of the pharmacy profession. The program emphasizes a practical approach, with a focus on developing applied clinical pharmacy skills through real-life experience. The aim is to improve students' professional skills in clinical pharmacy and medication safety by integrating them into practical work during their studies.

Method

Interviewing relevant stakeholders during the curriculum design process. Establishment of cooperation agreements with different health care organisations, but especially with Kuopio University Hospital (KUH). Conducting a survey for health professionals who have already acted as supervisors to collect and analyse the barriers and enablers of supervising. Designing of a tutoring and mentoring package to support work-life oriented supervisors.

Results

The new clinical pharmacy program was launched in 2022. Practical cooperation with health care units has been integrated for several courses and cooperation agreements signed with all healthcare units in question. A new joint teaching post with KUH was established in 2023 to strengthen the link between university and healthcare practice. Pharmacy students



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are introduced to a multidisciplinary learning unit in KUH 2024. The feedback from the students and work-life oriented supervisors has been positive. The cooperation projects are considered relevant and useful for the development of new clinical pharmacy services and medication safety processes. Systematic tutoring and a guidance package to support work-life oriented supervisors is projected based on the survey results. Furthermore, a collaborative study with the UEF School of Educational Sciences and Psychology is planned to assess the work life-oriented supervision framework.

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Conclusions

The new work life-oriented clinical pharmacy program has been successfully implemented. It facilitates active collaboration with health care units, practical training for students, and the launch of new development projects in the units.

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1684

52 16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme I: RELEVANCE

PROVIDING VACCINATION PRACTICAL TRAINING IN UNDERGRADUATE PHARMACY EDUCATION

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Malta

Lilian M. Azzopardi

Introduction

The International Pharmaceutical Federation recognised that incorporating vaccination qualifications into pharmacist workforce education are needed to ensure that pharmacists can deliver vaccines as a standard part of practice.¹ Techniques in parenteral drug administration have been included in the clinical skills laboratory at the Department of Pharmacy of the University of Malta for the past 10 years. In academic year 2021-22, the practical training was evolved to reflect a competence-based learning exercise. The aim was to develop the training to certify achievement of practical skills.

Method

The practical training was developed by assessing the knowledge and practical skills that are required to confirm pharmacist competence in vaccination services. Literature was identified and the practical sessions were developed to cover the identified learning outcomes. Discussions were held with the National Immunisation Service (NIS) and the Primary Care Service to establish opportunities for students to undertake hands-on patient sessions.

Results

The training is mandatory and consists of three parts. In the first part, four practical sessions each of two hours duration, are held in the clinical skills laboratory to practice preparation and



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reconstitution of vaccines from vials and ampoules, and safe administration using injection simulators. Skills in interpretation and preparation of labels, documentation post-administration, and management of post-vaccination reactions are practiced. In the second part, three clinical observation and practice sessions of two hours duration, are conducted within the NIS and primary care setting. The third part involves completion of a relevant first aid course.

Conclusions

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Upon successful completion of the first two parts, a skills checklist is issued. A pharmacy-based vaccination delivery certificate is issued when part three, the relevant first aid course, is completed.

Literature

1. International Pharmaceutical Federation (FIP) vaccination reference guide: Knowledge and skills to support professional development and inform pharmacy education in vaccination. The Hague: FIP; 2022.

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1685

54 16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme I: RELEVANCE

ENHANCING PHARMACY EDUCATION: A COLLABORATIVE APPROACH BETWEEN PEDAGOGY EXPERTS AND PHARMACY EDUCATORS

Daniel Zeiss

Nord University

Linda Amundstuen

Reidun Kjome

Lone Holst

Mirey Alfarah

Marcel Köhler

Introduction

In Norway's higher education system, securing tenure necessitates qualifications in a specific scientific discipline alongside evidence of practical pedagogical skills. Despite recent efforts to enhance university pedagogy among faculty members, this aspect continues to be regarded more as a tenure prerequisite than as a foundational element for effective knowledge transfer. The effectiveness of teaching is often seen as a personal effort, significantly influenced by an individual's dedication to and interest in pedagogical approaches. This is particularly true in Pharmacy education, which has traditionally favored more conventional instructional strategies. There is a significant potential to refine teaching methodologies within Pharmacy education, through fostering collaboration between faculty members and educational developers.

Method

In the student-active learning projects "FREMFAARM" (University of Bergen) and "Staying connected through connecting" (Nord University), both funded by the Norwegian Directorate for Higher Education and Skills, supplementary pedagogic competences were



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introduced to the regular staff, by means of employing educational developers. Collaboration in these interdisciplinary teams showed a profound and sustainable change in the staff's perception of pedagogy in their work.

Results

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The collaboration between faculty members and educational developers in both projects contributed to the creation and implementation of student-centered pedagogies by the academic staff. Moreover, these partnerships increased recognition of pedagogy's critical role in faculty professional development. The staff's pedagogical competencies were strengthened during the projects.

Conclusions

The development of didactics in Pharmacy education in Norway is a lecturers' responsibility. Due to individual's attitude and interest in pedagogy/didactics, and differences in scientific disciplines, the quality of pharmaceutical education might be inconsistent. Teams, comprising scientific and pedagogical competencies, could assure the quality of pharmaceutical education, both on an institutional level, and on a national level by developing a specific pharmaceutical didactic teaching methodology.

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1686

56 16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme I: RELEVANCE

USE OF INTERNATIONAL NON PROPRIETARY NAMES (INN) AND ITS
STEMS IN PHARMACOLOGY SUBJECTS, IN THE DEGREE IN
PHARMACY

Aina SURROCA REBES

FUNDACIO BLANQUERNA (UNIVERSITAT RAMON LLULL)

Concepció Mestres Miralles
M.pilar Gascon Lecha
Rafaella Balocco

Introduction

One of the difficulties of pharmacology is remembering the names of drugs, as well as identifying the pharmacological group. The INN (or Generic Names) program of the World Health Organization (WHO) aims to establish a unique global name for substances with pharmacological activity. The INN contain suffixes (stems) that aim to identify the pharmacological group, mechanism of action and chemical structure of the drug. A stem is especially useful in teaching since most drugs in the same group share it. Therefore, it can contribute to facilitating learning in pharmacology.

Objectives

Include the stem system of the WHO program in the pharmacology subject to facilitate the learning of the subject contents.

Method

The Ramon Llull University is a pilot center of the WHO School of INN (1). Before studying the pharmacological groups, the student is introduced to the meaning and use of INN and



stems. There are workshops related with the main lessons, where explanation and carrying out exercises are combined.

Results

The introduction of this program started during the 2020-21 academic year. It currently consists of the following structure:

- Workshop 1: The WHO INN program. Program structure. INN adjudication circuit. Stem operation. How to search for the stem of a drug.
- Workshop 2. Nomenclature of monoclonal antibodies.

Students perform an exercise to search for the stem and pharmacological group (ATC) of a series of drugs/monoclonal antibodies. Completed with the search for mechanism of action, therapeutic indication(s) in Bot PLUS. During classes, the application of the stems is included in the group description, highlighting the INN in the drugs of the group.

According to an specific survey , students showed good acceptance of these sessions.

Conclusions

Using the WHO School of INN program systematizes and is an interesting tool when teaching pharmacology. Students found it useful.

Literature

- 1- School of Nonproprietary Names. Available at: <https://extranet.who.int/soinn/>

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1688

58 16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme I: RELEVANCE

IMPLEMENTATING OSCE EXAM FOR UNDERGRADUATES PHARMACY STUDENTS AT THE UNIVERSITY OF SEVILLE: THREE YEAR EXPERIENCE.

Antonio RAMOS CARRILLO

University of Seville

José Manuel Calderón Montaña
Marina Sánchez Hidalgo
María del Mar Orta Cuevas
María del Carmen Monedero Perales
María de los Ángeles De Rojas Álvarez
Nuria Muñoz Muñoz
María Eulalia Gómez Pantoja
Julia Morales González
María Álvarez Sotomayor

Introduction

OSCE exam evaluates clinical competencies acquired during health professional training. Since its implementation is a challenge of planning and coordination, a pilot study and consequent reflection is advisable. The aim of this presentation is to analyze the results of the last phase of the OSCE pilotage during academic year 2022-23 in order to identify improvement opportunities.

Method

Three dynamic and two static stations were designed. 106 among 210 students were selected to undertake the OSCE exam. Student's scores were recorded globally and disaggregated by stations and competencies. Student's satisfaction and self-perception of



learning were assessed by a Likert questionnaire (0 to 5). Results were compared with those obtained in the two precedent years.

Results

During 2022-23, 106 students undertook the OSCE exam, including for the first time volunteers and randomly selected ones. The students gave high-very high ratings to: objectivity (90%), satisfaction with own performance (74%), adaptation to care competencies (77%), treatment received (94%), prior information and organization (85%). 32% to 50% of the students also adequately assess the degree of difficulty of each station. There is no correlation between the score and the self-reported difficulty for each station. The lowest score (3.7/10) was obtained in the information search station. The highest score was observed in dose calculation and individualized medicament (7.1). The highest rated competences were: communication skills (8.8) and technical skills for medicament compounding (8.1). The inclusion of non-volunteers, reduced the mean score in 0.76 points. 21 of 106 students failed the test and 5 of them had marks below 4 out of 10. Eight students had ratings above 8 out of 10.

Conclusions

The piloting has optimised prior information, logistics and organisational aspects of the OSCE. The inclusion of non-volunteer students has reduced the satisfaction with the own performance and has worsened the rating.

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1689

60 16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme I: RELEVANCE

NAVIGATING CHALLENGES IN PHARMACY EDUCATION: A COMPREHENSIVE ANALYSIS OF A PHARMACY CURRICULUM

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Dragana Popovic
Julia Alexandra Schintler
Anita Elaine Weidmann

Introduction

Adapting pharmacy curricula to meet the dynamic demands of professional practice presents a global educational challenge. This study aimed to analyze the current curriculum content of the undergraduate (BSc and MSc) Pharmacy Programme (PP) at the University of Innsbruck.

Method

Content PP mapping was carried out independently by three researchers (IT,DP,JS) against the PHARMacy education IN Europe guidelines. All subjects were classified into Chemical (CHEM), Pharmaceutics/Technology (PHAR), Maths/Physics (MATH), Biological (BIO), Pharmacology/Medicinal (MED), Social, Clinical Pharmacy and Law (PRAC), and Generic (GEN) science clusters. Subjects encompassing multiple clusters were classified as "MULTI." Several elective subjects, spanning different clusters, vied for a single slot in the PP, leading to their exclusion from this classification. Subsequently, the clusters were categorized into overarching chemistry, physical, and practice science groups. The subject study load was analyzed using European Credit Transfer and Accumulation System (ECTS) credits. In addition, a full-time student load ratio of physical and practice sciences was calculated by dividing their ECTS credits by those of chemical sciences.

Results



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FACULTIES OF PHARMACY

The PP of 300ECTS is comprised of 71 subjects. These are divided into compulsory (n=277.5ECTS, 92.5%ECTS) and elective subjects (n=22.5ECTS, 7.5%ECTS). The ECTS of compulsory subjects are primarily allocated to CHEM (n= 93.5ECTS, 33.69% ECTS), PHAR (n= 42.50ECTS, 15.32%ECTS) and MED (n=42ECTS, 15.14% ECTS) clusters. The chemical science subjects group comprised most of the ECTS (n=141ECTS, 50.81% ECTS), followed by Practice, Physical science, and courses belonging to multiple groups. The full-time students' Physical and Practice sciences load ratios were 0.19 and 0.40, respectively.

Conclusions

The study highlights the prevalence of the chemical subject group and advocates for increased elective subject slots. Enhancing the curriculum with more electives can cultivate specific skills for diverse facets of future practice. Additional mapping, using the professional frameworks, to this analysis will enhance our understanding of PP improvement.

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1696

62 16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme I: RELEVANCE

ADVANCING PHARMACY EDUCATION THROUGH EXPANSION OF THE FIP-UNESCO-UNITWIN NETWORK TO EUROPE

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Ozge Ozer
Lilian Azzopardi

Introduction

The FIP-UNESCO-UNITWIN Global Pharmacy Education Development Network began in sub-Saharan Africa in 2010 with formation of an African Center for Excellence (CfE). Significant strides were made towards advancing pharmaceutical education in the ensuing ten years.¹ The FIP-UNESCO-UNITWIN agreement was renewed in 2023 allowing for establishing CfEs in other WHO regions beginning with the Southeast Asia Region (SEAR).

Method

In 2021 and 2022, regional virtual workshops and global summits were held five WHO regions to begin the process of globalizing the UNITWIN program. The European region workshops identified three major priorities aligned with FIP Development Goals (DGs) for a regional pharmaceutical education roadmap: FIP DG 5 Competency Development, FIP DG 13 Policy Development and FIP DG 20 Digital Health. At the 2022 EAFP Conference, FIPed organised a competency development workshop on digital health and policy to integrate digital health into pharmaceutical education.

Results

Membership in the CfE is at no cost and consists of leadership teams from pharmacy schools networking to implement priorities of each region. FIP education resources such as the



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Global Competency Framework (GbCF, v2)² and Nanjing statements are tools that can be used within the UNITWIN regional networks to map current curricula and identify gaps in programs that address regional needs-based priorities.

Conclusions

The European Region CfE will be established in Q4 2024. It is an opportune time to brainstorm on models for membership and regional drivers to facilitate pharmacy education transformation. As additional CfEs become established a first of its kind global network is created to collectively transform pharmacy education.

63

Literature

1. Uzman N, Williams AE, Altieri RJ, Anderson C, Bates I. Implementing FIP's global pharmaceutical education transformation vision in Sub-Saharan African Countries. *Research in social & administrative pharmacy: RSAP* [Internet]. 2020;16(8):1131–5.
2. Akel M, Bader L. FIP Global Competency Framework (GbCFv2) handbook: Supporting early career training strategy. The Netherlands: The Hague, 2023.

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1701

64 16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme I: RELEVANCE

A GOOD LABORATORY AND MANUFACTURING PRACTICES APPROACH TO TEACHING PHARMACOGNOSY PRACTICUMS

Asen Stoyanov

SU "st. Kliment Ohridski"

Introduction

Pharmacognosy is a core discipline taught by a diverse team of academic staff throughout the last decade in the master's program in Pharmacy at the Faculty of Chemistry and Pharmacy at Sofia University "St. Kliment Ohridski". While the Pharmacognosy courses engage students with both historically relevant and contemporary problems, the methods of teaching and assessing professional skills during laboratory practicums have remained relatively conservative. The aim of this preliminary research is to critically reexamine the present Pharmacognosy practicums using the principles of good laboratory and manufacturing practice (GLP and GMP), placing the focus on students as the "product" of the course.

Method

Comparative analysis of the practicums structure, systems of quality control (grading student performance), academic staff structure, occupational specifications and workload, equipment and facilities and relevant documentation was carried out for the winter semesters of academic years 2022/2023 and 2023/2024. Course result statistical analysis and student questionnaires were used to quantify and evaluate implemented changes. The questionnaires are comprised of 4 domains and 33 questions. The domains are as follows: course attendance, course relevance, staff performance and grading system.

Results



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A detailed restructured plan of practicums has been developed, better correlation between examination results and demonstrated skills is observed, staff workload has decreased despite reduction in staff members, necessary facilities improvements and equipment acquisitions are highlighted, student feedback drifts are quantified though overall impressions remain generally positive.

Conclusions

65

Though the principles of good laboratory and manufacturing practice are typically employed in industry, a strong case can be made for their implementation in higher education as an important and useful tool for ensuring better practicum and student outcomes, workload management and future prospects.

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1703

66

16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme I: RELEVANCE

DEVELOPMENT AND IMPLEMENTATION OF AN INSTRUMENT FOR SELECTING THE PHARMACY INTERNSHIP BASE AT THE UNIVERSITY OF TARTU

Kristiina Sepp

University of Tartu

Daisy Volmer

Introduction

The European Union (EU) Directive on the Recognition of Professional Qualifications (Directive 2013/55/EU) provides a framework for pharmacist education and training, including a six-month internship in a community or hospital pharmacy. The quality of the internship setting plays a significant role in applying students' theoretical knowledge and skills in practice. This study aimed to develop and implement an assessment instrument for pharmacies to apply as internship bases for the University of Tartu (UT) pharmacy students.

Method

A quality assessment framework (online questionnaire) based on three key stages (initial steps, tool development, and dissemination) ⁽¹⁾ was used, and the developed tool has been forwarded to all community pharmacies in Estonia since 2021.

Results

The developed assessment instrument consists of 26 questions: eight open-ended and 18 multiple-choice questions being divided into three categories. First, the characteristics of the pharmacy: opening hours, customers per day, number of pharmacists, assortment, preparation of medicines, and provision of extended services. Second, interprofessional collaboration, delivering person-centred care, applying quality standards in practice, and



leadership skills. It is essential to understand the general principles of the pharmacy in service provision and pharmacy management, as practicing pharmacists are important role models for the professional socialization of pharmacy students. Third, expectations of cooperation with UT within the internship outlined the pharmacy's knowledge of partnership and integration of activities. From 2021, 161 pharmacies have applied for the practice base, and 71 pharmacies have been accepted.

Conclusions

67

Developing and implementing an assessment instrument has proven to be a valuable tool for pre-selection of the pharmacy internship bases. A high-quality internship base contributes to the achievement of students' learning outcomes within the curriculum.

Literature

1. Whiting P, Wolff R, Mallett S, Simera I, Savović J. A proposed framework for developing quality assessment tools. *Systematic Reviews*. 2017 Oct 17;6(1).

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1704

68 16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme I: RELEVANCE

AWARENESS ABOUT PHARMACEUTICAL WASTE REQUIRES AN EDUCATED SOCIETY

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University of Tartu

Heidi Heinlaid
Kätlin Tuulik

Introduction

The production and consumption of medicines are increasing worldwide, leading to the presence of pharmaceuticals and their residues in the environment. Disposal of pharmaceutical residues in sewage and household waste leads to drinking water contamination, soil, or marine water, affecting human health and the surrounding environment. The study aimed to assess population awareness and habits regarding household-generated pharmaceutical waste.

Method

A cross-sectional quantitative online survey among people living in Estonia was conducted in October 2023. The validated questionnaire consisted of 16 multiple-choice questions and eight open-ended questions. The study was carried out in different Facebook Groups.

Results

Two hundred twelve people participated in the study, most of whom were women (90%) and from the age group 31-50 (58%). Of the participants, 64% return expired and unused medications to the pharmacy, 45.3% take them to a waste collection site, and 8.5% dispose of them in household waste. Of the participants, 42% rated their awareness of the environmental hazards of pharmaceutical waste as high. Most participants considered social media and the pharmacy environment to be sources of information for adequately disposing of



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pharmaceutical waste. Furthermore, pharmacists were seen as key players in increasing the population's knowledge about the correct disposal of medicine waste.

Conclusions

Although the majority of people rated their awareness higher than average, there is an expectation for society to pay more attention to the proper and environmentally friendly disposal of pharmaceutical waste. Pharmacists should play a bigger role in educating people about the danger of pharmaceutical waste, and taking this role requires enhancing public health competencies with a focus on medical waste.

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1706

70 16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme I: RELEVANCE

Connecting the undergraduate pharmacy students with the research:
external academic work placements in the Pharmacy Degree

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Raquel Sendon

Matilde Casas Parada

Paz García Martínez

Introduction

One of the key learning objectives of the current curriculum of the Degree in Pharmacy is to encourage students to develop experimental designs based on scientific methodology and to interpret scientific works in the field of health sciences. To achieve this, in the academic year 2014-2015 started the optional curricular internships in research groups (PEGI) linked to the Faculty of Pharmacy.

Method

External internships in research groups (PEGI) is an optional subject included in the curriculum of the Pharmacy Degree, and as such, students can include this subject in the total elective subjects (27 ECTS) mandatory in the degree. PEGI can be a semestral or annual subject of 4,5 or 9 ECTS respectively, which in each case involves a duration of the internship of 112,5 and 225 hours.

To be eligible to offer a vacancy, research groups (GI) must be included in the research portal of the University of Santiago de Compostela and at least one member of the group (formally recognized as a principal investigator (PI)) should participate in the teaching activities of the Pharmacy Degree. Additionally, the GI must sign a collaboration agreement with the Faculty of Pharmacy for the academic work placements. In the case of students, to be able to apply for a PEGI, they must have passed at least 148,5 credits.

Results

About 20 students participate each academic year in PEGI, and since it started ten years ago, some improvements have been made each year. At the end of the internship, as a part of the assessment



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process, students must present their research tasks in an in-house congress that the Faculty organizes at the end of the academic year.

Conclusions

Researchers consider that the experience adds value to the student curriculum and the students' feedback is very positive, achieving high scores (9/10) in satisfaction surveys.

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1709

72

16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme I: RELEVANCE

THE ROLE OF QUALITATIVE RESEARCH METHODS IN PHARMACY EDUCATION AND PRACTICE

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University of Latvia, Faculty of Medicine

Ruta Muceniece
Una Riekstina

Introduction

Qualitative research methods offer a deeper understanding of patient experiences with medication use, factors that influence adherence, provide a contextualized view of pharmacist-patient interactions, communication patterns, and the organizational factors that impact the delivery of pharmaceutical care. This approach is crucial for identifying areas for improvement in patient education, counselling practices, and overall service delivery. Study programs that deliver pharmacist education should follow healthcare and industry trends providing modern and appropriate education.

Method

The content analysis of the master's theses defended for the last three years (2023-2021) was carried out, evaluating the research methods used in the study. The results were expressed as a percentage according to the method used: qualitative, quantitative research method, or mixed method.

Results

Master's degree students most often prefer to use quantitative research methods (experimental studies, questionnaires and analysis of medication or food supplement turnover). In 2021, this type of research method was used in 86 % of cases, in 2022 - 96 %,



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and in 2023 it was 77 %. Very few, students also tend to use mixed methods, which are mainly open-ended questions in questionnaires and interviews. In 2021 this approach was used 14 %, in 2022 – 4 %, and in 2023 it was already – 19 %. Qualitative research methods are almost not used at all, they were found only in 4 % of master's theses in 2023. year.

Conclusions

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The incorporation of qualitative research methods in pharmacy education and in pharmacy research is essential for refining patient-centred pharmaceutical care models. Overall, we should strengthen the qualitative research in pharmacists' education, because it is more than a methodological choice; this ensures better and more effective understanding between patients and pharmaceutical care providers.

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1712

74

16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme I: RELEVANCE

INVENTORY OF INTERNATIONALIZATION ACTIVITIES IN PHARMACY STUDY PROGRAM AT VILNIUS UNIVERSITY

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Vilnius University

Ramune Jaobsen

Vaiva Hendrixson

Introduction

The internationalisation of studies is one of the strategic directions of Vilnius University (VU). Internationalization in this context covers physical or virtual mobility, increased internationality of the study environment and gaining intercultural competencies to enable graduates work and operate in a global environment. This presentation outlines the inventory of internationalization activities in in pharmacy study program at VU.

Method

The Pharmacy study program was reviewed by the pharmacy study program committee as a part of European Union project No. 09. 3.3-EFSA-V-738-03-0001. The overall current situation was reviewed, and internationalization activities were identified and evaluated. Needs and facilitators for further development identified.

Results

The five-year Pharmacy program curriculum consists of 32 obligatory and 6 elective courses. Most of the courses include internationalization activities. 2 obligatory and 2 elective courses include educational cooperation between lecturers from different universities in Sweden, Portugal, Denmark and New Zealand. At least 4 obligatory and 1 elective course cover international examples, practices and guidelines. One elective course includes specific learning objectives, teaching methods and assessment approaches targeting internationalization. "Pharmacotherapy and Rational Use of



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Medicines” “Drug Utilization Research” and “Intercultural Competencies in Pharmaceutical Practice” were most focused on internationalization activities. Mobility activities and integration of international student groups were lacking. Institutional support, including financial, is needed to assure the sustainability of all the activities.

Conclusions

In general, the Pharmacy program at VU integrates internationalization activities into the curriculum. There is a need to expand these activities across a broader range of courses, and pay more attention to the development of specific learning objectives and assessment strategies that would strengthen internationalization.

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1725

76 16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme I: RELEVANCE

DIGITALIZATION OF PHARMACY EDUCATION AT THE MEDICAL UNIVERSITY – PLEVEN, BULGARIA

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Introduction

The challenges in pharmacy education are constantly emerging from the dynamic changes in the pharmaceutical practice and especially the digital transformation of healthcare. The aim of our study is to present the new dimensions and future perspectives of pharmacy education at the Medical University - Pleven (MU-Pleven) in the light of its digitalization.

Method

We performed a content analysis of the Nanjing Statements on Pharmacy and Pharmaceutical Sciences Education of the International Pharmaceutical Federation (FIP) and the European Pharmacy Competences Framework (EPCF) of European Association of Faculties of Pharmacy (EAFP) while comparing them to the MU-Pleven pharmacy curriculum and teaching experience.

Results

The Nanjing Statements (67 statements, grouped in 8 clusters) represented the FIP requirements for the effective pharmaceutical education. In the EPCF the requirements for pharmacy practice are defined and ranked as 50 competences in 11 domains. We found that the pharmacy curriculum of MU-Pleven and the innovative teaching methods applied are in line with the Nanjing Statements and the EPCF as well as with the four EAFP pillars of relevant



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FACULTIES OF PHARMACY

pharmacy education that are based on workforce market needs in all settings: community and hospital practice, industry, regulatory bodies and research institutions.

Conclusions

MU-Pleven Faculty of Pharmacy should continue redesigning its pharmacy curriculum using the principles of competency-based education in order to keep up with the digital changes in the profession, technology and society and provide pharmacy students with knowledge, skills and attitudes that prepare them for their new professional roles in the digital healthcare environment.

77

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1740

78 16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme I: RELEVANCE

Development of a new MPharm degree at the University of Leicester

Daniel Greenwood

University of Leicester

Sue Ambler
Ayesha Rahman
David Wright

Introduction

The 2021 standards for UK undergraduate pharmacy education place increased focus on patient care and clinical skills, including prescribing rights at registration. This requires completion of a one-year Foundation Training programme following graduation. With first intake planned for September 2024, the University of Leicester (UoL) has developed a new MPharm degree aligned to NHS needs i.e. train pharmacists who are legitimised, medicines-focused clinicians (1).

Method

Curriculum development has been informed by: focus groups with key stakeholders (8 pharmacy students, 10 patients/carers, 5 healthcare professionals, and 10 employers); pharmacy and medical education literature; and faculty experience.

Results

The new curriculum includes core clinical systems learning (Years 1&2), followed by integrated case-based learning (Years 3&4). On student recommendation, increased experiential learning opportunities have been included through 13-week long placements in Years 1-3; most teaching will be delivered by pharmacists; and laboratory classes have been reduced. The latter has made space for increased clinical teaching (e.g. prescribing and clinical skills), which physicians recommended to help students make timely decisions about



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patient care. Also on physician advice, weekly placement study days with the university have been included to provide support, shared learning, and reflection opportunities. These curriculum decisions intend to create graduates who are ready to progress their prescribing skills during Foundation Training, which was a priority for employers.

Conclusions

Given regulatory changes to include prescribing rights at registration, and stakeholder recommendations, the UoL MPharm places increased emphasis on applied, integrated clinical teaching, and includes extensive experiential learning. Evaluation pending, these evidence and expert informed curriculum decisions have been made to legitimise students' clinical proficiency as medicines-focused clinicians.

Literature

1. McDermott I, Astbury J, Jacobs S, Willis S, Hindi A, Seston E, et al. To be or not to be: The identity work of pharmacists as clinicians. *Sociology of Health & Illness*. 2023;45(3):623-41.

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1615

80

16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme II: ACTIVE
LEARNING

IN TALLINN HEALTH CARE COLLEGE, AN INTERACTIVE GARDEN HAS
BEEN CREATED FOR THE STUDY OF MEDICINAL PLANTS

Lilian Ruuben

Tallinn Health Care College

Merle Kiloman
Catri Valner
Marko Veinbergs

Introduction

As urbanization continues to increase, the connection between people and nature has taken a backseat. The school's medicinal plant garden serves to teach pharmacy students about medicinal plants and their properties. It provides a tranquil space for students to relax during the summer period. The rooftop garden facilitates interdisciplinary research. The plant data is stored in the Trulogs database, and nameplates containing QR codes provide quick access to their information, which is accessible both in mobile view and through the website trulogs.com.

Method

Materials for records are collected in the subjects of botany, pharmacognosy, and phytotherapy. Guidance and sample texts assist in compiling the records. The information gathered includes botanical characteristics, systematic classification, distribution, effects, and uses. Photos are taken in various habitats and at different stages of plant ontogeny. The addition of a photo bank allows for exploration of essential identification features, developmental stages, and intraspecific variability. The records rely on scientific data, and information in the text is referenced to reliable sources. The Trulogs database is hosted on Linux-based servers, and Python programming language is used for its creation.



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FACULTIES OF PHARMACY

Results

The project results in a new database for the college, through which evidence-based information about the plants growing on the rooftop garden is shared. It introduces the possibilities of using and cultivating these plants, and there is readiness to conduct training and research on the plants grown in the garden.

Conclusions

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The rooftop garden is utilized in subjects such as botany, pharmacognosy, phytotherapy, and thesis work for visual recognition of medicinal plants, collection of plant materials for educational purposes, and material analysis.

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1661

82

16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme II: ACTIVE LEARNING

STUDENT-CENTERED PEDAGOGY IMPROVES ACADEMIC WRITING SKILLS IN 1st SEMESTER PHARMACY STUDENTS

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University of Bergen

Line Iden Bergen
Reidun Lisbet Skeide Kjome
Rania Mohamed
Mirey Alfarah

Introduction

Experience with teaching and supervising in the pharmacy master program at the University of Bergen has shown that several 4th and 5th year students struggle with academic writing skills such as literature search, critically evaluate information from different sources, citing and referencing. Previously, teaching on academic writing has been provided as traditional lectures and group assignment in the first semester pharmacy course. Within the framework of the FREMFARM project, we aimed to design, implement, and evaluate the effect of student-active methods including Team-Based Learning (TBL) and individual written assignments on academic writing skills in 1st semester pharmacy students.

Method

We developed a new teaching activity aiming at a student-centered approach for 1st semester pharmacy students in a social pharmacy course. TBL was applied to learn about literature search and critical source assessment, while an individual written assignment was used to learn and practice citing and referencing. The students self-assessed their knowledge and skills on the topic prior to and after the teaching activities. A draft of the written assignment was submitted in class at the pre- and post-submission. The students



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were provided feedback by Rubric assessing citing, content, and language from 0 to 2 points of the post-test. A revised version of the assignment was submitted in the portfolio as a part of the course assessment. We compared the Rubric score of the pre- post- and final submission.

Results

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A total of 39 students were included. The Rubric assessment of the pre- post- and final submission showed improvement in citing (0 point: 32-14-4, 2 points: 4-14-20), content (0 points: 13-5-1, 2 points: 12-16-20), and language (0 points: 8-6-1, 2 points: 15-19-23).

Conclusions

The rubric scores suggest an improvement in the students' academic writing skills, however, the impact on learning should be explored in depth with qualitative data.

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1667

84

16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme II: ACTIVE
LEARNING

EVALUATING PHARMACY STUDENTS' VIEWS ON VIRTUAL REALITY (VR) IN PHARMACEUTICS EDUCATION

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L Holst
A M Raddum
R L S Kjome
M Alfarah

Introduction

Virtual reality (VR) has been used to teach various topics in pharmacy education. One potential use of VR is virtual clean rooms, which may improve students' understanding of compounding of sterile pharmaceutical preparations and enhance awareness of medication errors related to compounding. A survey was conducted to investigate the students' opinions on the use of VR as a possible pedagogical method for pharmaceutics teaching.

Method

An electronic survey based on Cicek et al (1) was conducted using a questionnaire containing statements on the use of VR that students rated on a Likert scale. Each statement was related to one out of three hypotheses stated before development of the questionnaire; 1) Students prefer VR over video/2D screen; 2) Students believe that the use of VR would increase interest in and satisfaction with the teaching of pharmaceutics; 3) Students believe that the use of VR will increase learning outcomes in pharmaceutics. The study was set up in SurveyXact® as an anonymous study and sent to all pharmacy students enrolled in the spring semester 2023 (132 students).



Results

In total 59 responses were registered, 51 of which were included for further analysis. Results indicate that students have positive attitudes towards the use of VR. Results and feedback from the students further indicate that students prefer VR as a complement to real world laboratory teaching, rather than a replacement.

Conclusions

85

The primary takeaway is that students are receptive to the integration of VR, but they prefer it as a valuable complement to conventional teaching methods and emphasize the importance of hands-on experience in real-world laboratory settings.

This preference highlights an aspect that our initial hypotheses overlooked: the complementary rather than substitutive role of VR.

Literature

1) Cicek I, Bernik A, Tomicic I. Student Thoughts on Virtual Reality in Higher Education - A Survey Questionnaire. Information. 2021;12(4):151

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1669

86

16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme II: ACTIVE
LEARNING

BLENDED INTENSIVE PROGRAMS: A LEARNING EXPERIENCE IN
HIGHER EDUCATION

Silvia Pescina

University of Parma

Stefano Bruno
Theonil Lugo-Arendell
Marco Pieroni
Fabio Sonvico
Ilaria Zanotti

Introduction

Erasmus+ Blended Intensive Program (BIP, Key Action 1) is a short mobility program that involves students, teachers, and administrative staff from universities located in different EU Countries. The program is implemented by combining online and onsite sessions during which students get transversal skills and, supported by teachers who act as mentors, work on specific tasks in a collaborative context.

Method

In 2023, the Department of Food and Drug (University of Parma, Italy) participated in a consortium with Katholieke Universiteit Leuven (Belgium) and Faculté de Pharmacie of the Université Paris-Saclay (France, Coordinator of the project). The aim of the alliance was the realization of a BIP on the topic ‘Global health challenge’.

Specifically, twenty attendees (both master and PhD students in pharma and biomedical fields) have been divided into four transnational and transdisciplinary teams. Each team had to find an innovative idea in the field of health and simulate its development acting as a start-up company.



Results

During the online part (four weeks), students acquired technical skills (intellectual property, project management), as well as soft skills (communication, teamwork), thanks to the involvement of experts. In addition, each team met periodically to set-up the project, under the supervision of mentors.

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In the one-week face-to-face phase, held in Paris, the project idea was finalized, and each team presented its proposal to a jury of experts who awarded the best one.

A survey sent to all the students who attended the BIP depicted highly positive feedbacks.

Conclusions

Based on the favourable experience, the consortium has been enlarged and a fourth European University, University of Helsinki, joined the alliance. A new edition of the BIP will be proposed in the current year.

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1675

88

16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme II: ACTIVE
LEARNING

PILOTING SIMULATION TRAINING IN THE ADVANCED PHARMACY
PRACTICE EXPERIENCE (APPE) COURSE AT THE UNIVERSITY OF
OSLO -THE PHARMACY GAME EXPERIENCE

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Introduction

Introduction: The Pharmacy Game is an online simulated pharmacy platform which offers pharmacy students a safe environment to practice their clinical, managerial, and teamwork skills (1). It allows for trial and errors, without the risk of potential harm reaching actual patients (2). In Norway, we have hitherto not had access to such simulation facilities. The objectives were to investigate if the Pharmacy Game could: 1) refine students' skills in dispensing prescriptions and patient consultations; 2) prepare students for evaluation criteria applied at OSCE exams following the 6-months pre-reg in community pharmacies.

Method

Method: We developed 6 prescription cases based on previous OSCE exams in our advanced pharmacy practice experience (APPE) course. We also developed a point assessment form for dispensing prescriptions correctly, and for counseling patients on the use of medicines, based on previous examples from the Pharmacy Game developers.



Results

Results: The results of the simulation and how each team of in total 40 students performed in the game, will be presented. The applicability of the prescriptions and the assessment form will be discussed and passed on to evaluators for student feedback.

Conclusions

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Conclusion: Through this simulation study, we hope to stimulate critical thinking, decision-making, and clinical reasoning among students, and to inform future design and use of the Pharmacy Game simulation opportunities.

Literature

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poster

Abstract ID = 1679

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16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme II: ACTIVE LEARNING

GROUP DISCUSSIONS AND GRADED WRITTEN ESSAY IN DRUG STABILITY COURSE FOR PHARMACY STUDENTS

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Introduction

During storage drugs are susceptible for different environmental conditions including temperature, humidity and light which may lead to drug degradation. Thus, all pharmacists should have basic knowledge dealing with drug stability. In this course, collaborative learning approaches were included to promote the activity, knowledge retention and learning of students.

Method

Stability of pharmaceuticals is a course for 4th year pharmacy students in the University of Eastern Finland. The learning outcomes of the course covers chemical, physical and microbiological stability of pharmaceuticals including the regulatory aspects. The course contains 16 hours of lectures, 2 hours of calculation practicals, a laboratory exercise and final exam. The grade of the course is dependent on final exam (80 %) and laboratory exercise (20 %).

Results

The course starts with a group discussion using the Snowball method. First, small groups are formed, and students are drawing mind-maps from drug stability to recall their current understanding of a topic. In this exercise students circulate mind maps within the group and



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complement other students' mind maps. This exercise is followed by joint discussion with the teacher, where the students share and build their knowledge together. Before laboratory work in small groups, the group is writing a preliminary essay, in which they should critically evaluate the laboratory work protocol based on the lectures. In the laboratory, the group discusses first with the teacher the work protocol and the criticism described in the preliminary essay, and after that the essay is graded. After discussion the group is performing the laboratory work and finally the group is writing the laboratory work report, which is also evaluated.

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Conclusions

Experiences from the course show that active learning strategies, such as group discussions and the graded preliminary essay from the laboratory work significantly increased the motivation, participation and learning of the students.

Literature

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16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme II: ACTIVE
LEARNING

INTRODUCTION OF PHARMACEUTICAL CARE SERVICES IN THE LAST YEAR OF THE PHARMACY DEGREE

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Introduction

Pharmaceutical care services are increasing in Pharmacy due to the greater involvement of the pharmacist in the overall treatment of the patient, not only as a dispenser of medication

- In dispensing, the pharmacist must ensure that patients receive and use the medicines in a way that is appropriate to their clinical needs.
- The Pharmaceutical Indication is a in which the pharmacist, plays a fundamental role in the improvement of self-limiting health problems, and optimizes the use of OTC medication.
- Pharmacotherapeutic Follow-up aims to detect Drug-Related Problems (DRP) for the prevention and resolution of Negative Medication Results (NMR).
- Monitored Dosage System (MDS) is a system of aid in the adherence to the treatment; the pharmacist organizes the oral solid forms that a given patient takes, according to the prescribed dosage regimen.

Method

The Pharmacy Practice Classroom (PPC) of the Faculty of Pharmacy of University of Seville began to work in 2018 with the aim of increasing professional practice skills of Pharmacy students



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Students per pair carry out Role play situations patient-pharmacist, based on clinical cases. For the evaluation, each day has specific rubrics that are available for each proposed case in study.

Results

Pharmaceutical care services learning have been carried out by 1559 students since 2018, in the PPC. In 2023/24 the average grade has been 9,32/10, and more than 85% of students are over 9/10. Satisfaction survey shows, in general, a high level (4.4-4.9/5).

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Conclusions

Pharmacy student training is increasingly up-to-date, including activities that prepare them for professional life once they finish their studies. Since 2018, in the PPC, 1559 students have practiced pharmaceutical care services, so in the supervised internship period, students can collaborate in that services

Literature

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poster

Abstract ID = 1683

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16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme II: ACTIVE LEARNING

PROMOTING GLOBAL LEARNING: A COIL INITIATIVE IN BIOCHEMISTRY AND PHARMACOLOGY ACROSS MADRID AND SURREY

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Introduction

COIL (Collaborative Online International Learning) programs represent a methodology wherein students and educators from diverse nations collaborate virtually, enabling an international experience without physical mobility ("internationalization at home"). This approach facilitates students' interaction with peers and academics from various disciplines, universities, and nationalities, enhancing their intercultural competencies through collaborative project development. Herein, we present a COIL program: "INTERNATIONAL UNDERGRADUATE BIOCHEMISTRY AND PHARMACOLOGY CONGRESS: Biochemical Basis of Diseases, Pharmacological and Biotechnological Treatment, and Prevention," initiated in 2021 at the University of Surrey and Universidad San Pablo-CEU in Madrid.

Method

Participants in this COIL were students enrolled in "Biochemistry II" and "General Pharmacology" courses within the Biotechnology and Pharmacy programs at Universidad San Pablo-CEU (USPCEU), alongside students enrolled in the "Biochemistry" and "Biomedical



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Science” programs at the University of Surrey. Organized into groups of four (two from Surrey and two from USPCEU), students collaborated under the guidance of academic supervisors from either institution. Their collaborative effort culminated in a presentation on the biochemical basis of a disease, including its pharmacological and/or biotechnological treatment, presented at an international online conference.

Results

Since the 2020-2021 academic year, three editions of this COIL program have been conducted, engaging a total of 180 students and over 25 educators. In a satisfaction survey, a significant majority of students reported high value from the experience: over 92% expressed increased interest in Biochemistry and Pharmacology, while 89% noted improvements in communication and teamwork skills. Moreover, 92% felt more motivated toward international mobility, with 96% willing to recommend the activity to their peers.

Conclusions

This initiative provided students with an opportunity to approach a topic—specific diseases—transversally through international, interdisciplinary collaboration, fostering both academic and cultural connections. Thus, it stands as a significant platform for developing new academic and cultural links.

Literature

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Abstract ID = 1687

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16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme II: ACTIVE LEARNING

ERROR-BASED LEARNING IN LABORATORY CLASSES OF PHARMACEUTICAL TECHNOLOGY

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Introduction

Pharmaceutical Technology II is a curricular unit of the 3rd year, first semester of the integrated Master in Pharmaceutical Sciences at the Faculty of Pharmacy, University of Porto, Portugal. The learning goals of this unit include the development of skills necessary to identify the raw materials and interpret, prepare, and control pharmaceutical liquid formulations. The evaluation comprises a written exam (70%), a laboratory exam (individual preparation of a liquid formulation, 18 %), and the performance in the laboratory classes (12%). An error-based learning approach was implemented in 2016/2017 to improve the performance in the laboratory exams.

Method

In the laboratory classes, photographic records of the appearance of the liquid formulations prepared by the students and compounding preparation records were obtained. The most common errors were presented and discussed in a theoretical class, before the laboratory exam. The errors (comprising interpretation, execution, and record steps) were described in detail, omitting the names of the students, and the measures needed to avoid or correct the errors were explained.

Results



The average classification of the students in the laboratory exam (0-20 scale), in the four-year period before the implementation of this practice was 13.52 ± 0.05 (mean $\pm$ SD). Since the error-based learning methodology was adopted in 2016/2017, the average classification in the exam increased to 14.83 ± 0.20 (mean $\pm$ SD).

Conclusions

The error-based learning approach adopted in the laboratory classes promoted an improvement in the performance of the students in the laboratory exam and thus a successful achievement of the learning outcomes.

Literature

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16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme II: ACTIVE LEARNING

METACOGNITION: EXPLORING FORMATIVE TESTING IN SELF-REGULATED LEARNING

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Introduction

Metacognition is the ability to be aware of and to regulate the cognition process. Self-assessment methodologies that give students feedback about their knowledge allow them to plan and adjust learning strategies to achieve their goals. This study aimed to explore how formative testing can be used as an effective strategy of metacognition.

Method

162 students assigned to the Pharmacology II course of the Integrated Master in Pharmaceutical Sciences of the Faculty of Pharmacy of the University of Porto, Portugal (4th year, 1st semester). The lectures were mostly expositive and each thematic exposition ended with a single attempt formative test (FT) which provided opportunities for discussion. One week before the final exam, the same FTs were made available to be answered at home, with unlimited attempts. The score obtained in the final exam was correlated with the number of FTs answered, the sum and the mean of the FTs classifications (Pearson's correlation).

Results

An average of 75 students answered the FTs conducted in classes. A positive correlation was observed between the final exam score and the number of FTs ($p < 0.01$; $R = 0.448$), the sum of FTs classifications ($p < 0.01$; $R = 0.509$) and the mean of the FTs classifications ($p < 0.01$;



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R=0.496). When analysing the FTs conducted at home, despite an average of 545 attempts/FT was observed (min=1 and max=26 attempts/student), no correlation between the final exam score and the number of FTs was observed ($p=0.706$; $R=0.029$). However, when considering the first attempts of each FT, the final exam score positively correlated with the sum of the FTs classifications ($p<0.01$; $R=0.525$) and the mean of the FTs classifications ($p<0.01$; $R=0.454$).

Conclusions

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FTs can be an effective metacognitive strategy for engaged students, those with higher class attendance (number of classes FTs) and FTs classifications on the first attempt.

Literature

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16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme II: ACTIVE
LEARNING

An Educational Tool for Signal Identification in Quality Assurance within the
Medicinal Products Regulatory Sciences.

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Introduction

In the pharmaceutical regulatory sphere, the identification and interpretation of signals play a crucial role in the accessibility of safe, high quality, and effective pharmaceuticals. Signals are essential tools within quality assurance frameworks, particularly in the evaluation of intricate factors such as competence and compliance. This study proposes a methodological framework aimed at constructing an educational tool to strengthen signal management within the realm of quality assurance in medicinal products regulatory sciences.

The objectives of this research study encompass the development of an educational tool designed to:

1. Detect signals emanating from sources within the regulatory framework
2. Classify signals based on quantitative and qualitative criteria
3. Establish a proactive procedure for signal management
4. Formulate strategic action plans for signal optimization
5. Introduce novel terminology

Method

The key components of the educational tool consists of:



1. Retrospective documentation analysis
2. Categorisation and validation of signals through a risk-based index
3. A proactive approach promoting concordance
4. Novel methodologies for signal detection and mitigation
5. New terminologies and educational training curriculum

Results

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The educational tool established provides a variety of mechanisms for signal detection via internal documentation. The tool incorporates a component dedicated to identifying potential trends. There is a recognized necessity for educational tools aimed at signal classification, emphasizing the importance of structured modules designed to foster expertise in data analysis, critical reasoning skills, and knowledge acquisition. By integrating educational initiatives into signal management protocols, professionals can proficiently navigate and interpret regulatory data.

Conclusions

This study delves the confluence of data, communication, and governance dynamics, specifically concentrating on optimizing signal management through an educational medium. It is shown that the establishment of educational resources facilitate the comprehension of how organizations perceive, interpret, and response to signals. The developed educational tool seeks to empower regulatory entities with enhanced regulatory adaptability and resilience, enabling them to competently navigate emerging challenges and exploit opportunities.

Literature

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EVALUATING STUDENTS' PERCEPTIONS AND EXPERIENCES OF TEAM-BASED LEARNING: A LONGITUDINAL STUDY IN AN UNDERGRADUATE PHARMACY PROGRAM

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Helga Helgadóttir

Introduction

Team-Based Learning (TBL) is a student-centered pedagogical approach designed to foster teamwork, communication, and collaboration skills while deepening comprehension of course objectives. TBL was integrated into the undergraduate pharmacy curriculum at the University of Iceland. Initial student reactions to TBL were positive; however, it is unclear if this enthusiasm remains over time and if TBL consistently offers enriching experiences for students.

Method

A survey followed a pharmacy student cohort across three semesters, one course per semester containing the TBL setup, to gather perceptions on TBL. Participation was voluntary and anonymous, with 56% (n=27) responding rate

Results

All students, either agreed or strongly agreed they invested time in reviewing course material in preparation for TBL sessions, a perspective shared throughout all three TBL semesters. Same results were observed with the students' view on TBL helping them acquiring and understanding the study material. Additionally, all students expressed pride in their contributions to TBL sessions in the first two semesters dropping down to 92% of students in



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the third semester. The thematic analysis of open-ended questions found that students valued the TBL setup, appreciating instant feedback during on-site TBL sessions. Many praised the flexibility of online lectures, allowing autonomy in study time and location but still having the on-site sessions to stay on the topic. While students wished for greater TBL session grading impact, they recognized its beneficial role in the final exam preparation.

Conclusions

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Pharmacy students valued the TBL approach for engaging in the study material and appreciated the instant feedback, while also retaining a degree of autonomy in their studies. Although students wished for a greater impact of TBL on their final grading, they acknowledged its beneficial role in final exam preparation. Overall, the findings indicate a steady positive perception of the TBL approach by students.

Literature

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LEARNING

HOW TO MOTIVATE STUDENTS TO DISCOVER DIFFERENT AREAS OF
BEING A PHARMACIST: INTRODUCING PROFESSIONAL WORKSHOPS
IN 4TH & 5TH GRADE OF DEGREE IN PHARMACY

Aina SURROCA REBES

FUNDACIO BLANQUERNA (UNIVERSITAT RAMON LLULL)

Aina SURROCA REBES
Concepció MESTRES MIRALLES
M.pilar GASCON LECHA

Introduction

Introduction

Students of 4th & 5th grade may have started to think about with specialization will choose after graduating. Laboratory practices and daily contact with teachers may give them an overview but direct contact with pharmacists in different areas become necessary.

Objectives

Facilitate to our students information and a first professional overview as they arrive to the last part of their degree training.

Method

During second semester of 4th grade and first semester of 5th grade , workshops with external professionals are planned in some sessions so they can learn and think about different perspectives and performing areas of experienced pharmacists and organizations. After each session an specific survey is performed.

Results



In the pharmacy degree workshops were planned as follows, during 2023-2024 course:-

4th grade workshop with Association of Pharmacists of Barcelona, conference by a training & development expert with an overview of different areas of specialization. Explanation of the possibility of pre-collegiate modus that the association offers to get to know the professional association.

- 5th grade: workshops of specific areas in community pharmacy, hospital pharmacy, primary pharmacy, orthopedics specialists and nutrition specialization.

According to a specific survey, students showed good acceptance of these sessions.

Conclusions

Giving the opportunity to get to know professionals with a high level of experience helps the student to think in a different way and ask some important questions that can help them to focus on their future career. These kind of contents are part of transversal knowledge that they need to achieve in the near future.

Literature

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poster

Abstract ID = 1702

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LEARNING

FIELD-BASED LEARNING AS AN INTEGRATED PART OF THE PHARMACY CURRICULUM

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Introduction

Field studies have historically been an essential component of the educational toolbox, however in the last few decades, their application has steadily decreased. Field research is essential particularly in the biological sciences. A field-based botanical activity is a crucial component of the educational process allowing the study of plants in their natural habitat and a deeper comprehension of the interactions between the environment and plants.

Method

Results

Pharmaceutical botany is an essential subject that is required to prepare students for further courses in Phytochemistry, Pharmacognosy, Phytotherapy, Ethnopharmacology etc., which are studied as part of the pharmacy curriculum at the Faculty of Pharmacy, Ss. Cyril and Methodius University in Skopje. It is appointed with 3 European Credits (EC), comprising of 20 hours both for lectures and practicals, but also 40 hours of field-based learning, as mandatory for every second-year student. The field expedition occurs over four consecutive days where around 100 students and teaching staff stay in mountain resort at the outskirts of National Park 'Galicica' and National Park 'Pelister', gaining knowledge of plant morphology



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and taxonomy, acquiring practical skills in identifying plants from various taxa, collecting techniques and mounting herbarium. Students studying botany in the nature have hands-on experience that stimulates their creativity, sense of environmental responsibility, and awareness of the environment.

Conclusions

The field practice of medicinal plants is a very important link in pharmacy undergraduate education, and it is a comprehensive application and combination of theory and practice. In addition, learning that occurs in a field setting fully mobilize students' enthusiasm, cultivate independent study ability and team spirit, thus promoting the development of new generations of creative pharmacist, enhances environmental literacy, and installs social responsibility in our citizens.

Literature

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16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme II: ACTIVE LEARNING

ADVANCING PHARMACY EDUCATION IN NORWAY: A CLINICAL PLACEMENT PROGRAM

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Introduction

Several key stakeholders underscore the augmented use of practical experience as a learning activity to ensure relevance to the professional sphere. In health care, innovative clinical placement programs have been used to close the gap between academic knowledge and practical application. The aim was to create an extensive clinical placement program for pharmacy students encompassing clinical services in hospitals and municipalities.

Method

Our strategy included building networks with healthcare leaders, continuous improvement of the curriculum, and testing different clinical placement modules. We formed official partnerships with healthcare facilities and developed evaluation tools to measure student achievements. We also launched joint educational activities with medical students and pursued fresh approaches to improve the educational experience.

Results

We started a 15 ECT course, which included a seven-week clinical placement for three days each week. This was supplemented by practical training in medication reconciliation, medication review, and patient interaction. The curriculum features weekly seminars for



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discussing patient cases and collaborative workshops. Agreements were made with the University Hospital of North Norway for 32 students and with Tromsø's municipality for four students. Students frequently uncovered notable medication errors and issues during medication reconciliation, medication review and while talking with patients, which they reported to doctors. Feedback from students was overwhelmingly positive, reflecting an enhanced comprehension of the pharmacist's role in providing medication and patient safety. Preceptors provided constructive criticism on pharmacotherapy knowledge and clinical competencies.

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Conclusions

The clinical placement initiative has been effectively launched and represents a significant leap forward in educating pharmacy students. The program was well-received by students and healthcare partners, proving its value in equipping students for their upcoming healthcare roles.

Literature

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Abstract ID = 1716

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16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme II: ACTIVE LEARNING

INTERPROFESSIONAL EDUCATION DURING THE PRACTICE PLACEMENT – A PILOT STUDY AT NORD UNIVERSITY

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Hege Sletvold

Introduction

Interprofessional education (IPE) is key to build a collaborative practice environment and provide quality in patient care. The aim of this project was to develop, test and evaluate an IPE model with learning activities during the students practice placement periods, including students from the Bachelor Programmes of Pharmacy, Paramedic, Nursing, and Social Education at Nord University.

Method

Co-creation through collaborative action research was used, involving students and academic staff from NORD, and health professionals from Nord-Trøndelag Hospital Trust and Central Norway Hospital Pharmacy Trust. Development of the model included workshops and project meetings. The model was tested in two actions and evaluated in focus group interviews.

Results

The IPE model was developed, where participants were a selection of students (n=57), supervisors (n=6), and academic staff (n=5). The students participated in their ordinary practice placement according to their bachelor's programme, and were invited to join the following learning activities: two digital meeting points for all participants, digital



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interprofessional supervision of students in groups by health professionals, and students visiting other practice placement sites. Additionally, a structure for supervision of the supervisors were developed, including meeting points, lectures on supervision, and opportunity for reflection and discussion. Evaluation showed that the model increased awareness and set focus on collaborative practice. The pharmacy students visited hospital wards, that increased knowledge of pharmacists' role in health services and increased understanding of patient care and pathway. The structure for supervision of supervisors was experienced as useful and instructive. There were challenges in student participation in learning activities and sharing of information between activities. IPE was a burden to students due to workload in practice placements.

Conclusions

IPE during the practice placement is relevant for increasing the awareness of collaborative practice in healthcare. This model of IPE needs further adjustments prior to implementation in Bachelor programmes.

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1727

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16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme II: ACTIVE
LEARNING

OBSERVATION SESSIONS AT ASEPTIC COMPOUNDING SERVICES
WITHIN A HOSPITAL SETTING

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Introduction

With the rapid evolutionary pace of the pharmaceutical sector, it becomes of value that curricula are continuously revised to cater for such evolutionary trends. This includes exposing students to real-life scenarios prior to them joining the workforce. The aim was to expose prospective pharmacists to a practical experience strengthening their theoretical knowledge.

Method

The curriculum was evaluated for content and learning outcomes related to developed knowledge and skills. The need for the introduction of a structured visit to an aseptic compounding setting was established. A programme for the visit was developed to ensure a complete experience, including theoretical and experiential elements within clean areas and their ancillary service units.

Results



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Third-year students reading for a pharmacy degree, were identified as the ideal cohort to experience an aseptic compounding setting. The visit consisted of four stages. The first stage being a general introduction about services offered through the aseptic suite and the technicality of the requirements for its running. Students had the opportunity to familiarise with the Standard Operating Procedures regulating processes conducted daily within the area. In the second phase, students experienced the garbing process, observed the cleanroom setup and discussed the flow of materials into and out of the cleanroom. The third phase consisted of a visit to the air handling unit (AHU) plant room where an engineer provided an overview of the requirements of a cleanroom from a technical perspective. The fourth stage consisted of an electronic-interactive quiz on the information presented during the sessions carried out at the end of the visit.

Conclusions

Enabling students to experience real-world scenarios enriches their student experience and contributes to the development of skills and knowledge required to address the continuous developments within this sector.

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1730

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SIMULATION-BASED TRAINING IN PHARMACY EDUCATION

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Introduction

The Faculty of Pharmacy at the Medical University of Plovdiv was established in 2003 and for its relatively short history has been making continuous successful attempts to improve the quality of educational practices and structural innovations. Critical thinking, problem-solving, and application of knowledge in real situations are part of the activities encouraged as active learning in pharmacy education. At this point, a Medical Simulation Training Center of MU-Plovdiv (MSTC) was created. The mission of the Center is to enhance training for all students at the university, particularly those in pharmacy.

Method

Fifth-year pharmacy students are presented with patient cases or clinical scenarios in their Pharmacotherapy course. High-tech mannequins are used to model various symptoms, conditions, and diseases to realize this goal. The students are guided through the process of analyzing the case, identifying drug therapy problems, and developing treatment plans.



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Results

This approach encourages students to integrate knowledge from different disciplines and apply it to clinical situations. The use of simulated patient encounters, virtual patient cases, or high-fidelity simulations allows students to become familiar with realistic clinical situations in a controlled environment.

Conclusions

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By incorporating active learning methods into pharmacy education, educators prepare students for the complexities of modern pharmacy practice, promote lifelong learning, and develop skills that are essential for making appropriate decisions in a real-world pharmacy environment.

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1926

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16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme II: ACTIVE
LEARNING

PRACTICE BASED LEARNING APPROACH FOR UNDERGRADUATE PHARMACY STUDENTS

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Introduction

Practice-based Learning (PBL) is one of the approaches in the curriculum of undergraduate studies of pharmacy that provides stimulation for learning through active methods of teaching and learning combining theory and real-world experience. This approach is implemented in the education of the students for the subject Quality control of medicines and legislation (7 European Credits, EC) of the Pharmacy curriculum at the Faculty of Pharmacy, Ss. Cyril and Methodius University in Skopje.

Method

For this subject, the teaching methods include lectures and laboratory exercises, problem-based learning, seminars/workshops and home study. In order to facilitate the understanding of the analytical method development, an active workshop “Development of analytical methods from theory to practice”, was introduced last year, in collaboration with the Carrier Center of our faculty and the pharmaceutical industry.

Results



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The workshop consisted of two parts: dedicated training on the given topic and practical application of theoretical knowledge in laboratory, by working on a case study of a generic medicine, in the premises of the local pharmaceutical company. The students were challenged with problems from practice and successfully solved the given tasks. This approach provided possibility of obtaining results in real time, work in strictly controlled laboratory conditions in a modern EU GMP control laboratory with innovative technologies, acquire practical skills in the field of quality control of medicines, as well as developing competencies for teamwork and competitive spirit.

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Conclusions

This workshop provided an opportunity for students to have a more active role and greater engagement in a better learning, as well as development of competencies and skills for analytical approaches. It is also a good example of a cooperation between the academic and business community. The positive experience from this project will serve as a basis for future projects implementing practice based approaches in the curriculum of undergraduate students of pharmacy.

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1648

118

16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme III:LIFELONG LEARNING

How community pharmacists can better support LGBTI+ community

Aliko Peletidi

University of Nicosia

Ilias Tanis

Vassilios Kiosses

Constantinos Phellas

Christos Petrou

Michael Petrides

Introduction

The LGBTQ+ community (LGBTQ+c), incorporates a wide range of sexual orientations and identities. Unfortunately, the LGBTQ+c faces inequalities in the field of health (1). Community pharmacists (CPs) play an important role in addressing the needs of the LGBTQ+c as they dispense medications, etc. By creating safe and inclusive spaces, CPs allay fears of discrimination against these individuals and provide information and preventative measures. This study aimed to: a) identify ways CPs can improve pharmaceutical care for LGBTQ+c, b) explore gaps in CPs' knowledge and attitudes towards LGBTQ+c.

Method

An anonymous questionnaire (35 questions) was distributed (online/in-person) to CPs working/owning pharmacies in Thessaloniki (co-capital of Greece) in Q4 2023. Implied consent was given upon agreement on completion. Ethical approval was received by the Pharmaceutical Association of Thessaloniki. Descriptive and inferential statistics were used (tools: Excel and SPSS). In total 305 CPs participated (minimum sample, n=220).



Results

The results showed that most of the CPs are willing to support LGBTQ+c, however, a lack of knowledge about LGBTQ+c-specific issues was detected. Age ($p=0.000$) and experience ($p=0.006$) appeared to play a critical role in CPs' perception of difficulty serving LGBTI+c. These factors are significantly related to the participation in educational actions to promote the understanding of the needs of LGBTQ+c ($p=0.000$ and $p=0.000$ respectively). It also highlights a contradiction between their positive attitude and their lack of education, underlining the importance of continuous training for a better understanding and support of the LGBTQ+c.

Conclusions

This is the first study in Greece exploring CPs perceptions' regarding their role in LGBTQ+c. It highlights the need for action to encourage respect, understanding, and full support of the LGBTQ+c in health and care.

Literature

Medina-Marúnez, J. et al. (2021) 'Health inequalities in lgbt people and nursing interventions to reduce them: A systematic review', *International Journal of Environmental Research and Public Health*, 18(22).

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1664

120

16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme III:LIFELONG LEARNING

Optimizing Pharmacy Workforce Wellbeing and Transformation in the United States

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University of Minnesota

Caroline Gaither
Jessica Fairbanks
Anita Jelodari
David Mott

Introduction

In the United States, prioritization of healthcare business efficiency increased pharmacist stress and burnout to the highest levels recorded. The objective of this study was to (1) compare sources of dissatisfaction among pharmacists in independent, chain, ambulatory care, and hospital pharmacies and (2) describe work experiences in respondents' own words. Our goal is to use these findings for optimizing pharmacy workforce wellbeing and transformation.

Method

Survey data were collected from 5,173 licensed pharmacists in the United States during 2022. Content analysis was applied to written responses regarding sources of dissatisfaction. Inter-judge reliability was assessed with the Perrault/Leigh reliability index: $\{[(F/N) - (1/k)] [k/(k - 1)]\}^{1/2}$ where F = frequency of agreement between judges, N = number of judgments, and k = number of categories. Hermeneutic phenomenology was used for the second objective in which respondents' lived experiences were described. Team member reflexivity was performed during analysis and principles of realism, credibility, authenticity, member checking, and audit trails were used for supporting analytic rigor.



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Results

For objective 1, inter-judge reliability was 0.98. The pattern of responses for the primary source of dissatisfaction among each practice type was similar, with job content, job demands, job support, performance pressure, and time pressure being mentioned by the vast majority of respondents in each practice setting. Written comments revealed that tasks placed upon pharmacists are not utilizing their expertise and suppress professional autonomy that is necessary for patient care. For objective 2, lived experiences of respondents showed the need for more organizational agility that would transform corporate practices, employee empowerment, and patient-centeredness.

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Conclusions

Pharmacy workforce wellbeing and transformation can be improved by aligning pharmacist tasks with their expertise and permitting pharmacist autonomy in patient care. We propose that performance metrics that prioritize business efficiency are detrimental to optimizing employee empowerment and patient-centered care.

Literature

Not applicable

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1670

122

16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme III:LIFELONG LEARNING

CHARTING NEW HORIZONS: ASSESSING MODULE EFFECTIVENESS IN CULTIVATING ACTIVE AND LIFELONG LEARNING IN PHARMACY PRACTICE

Tanja Fens

University of Groningen /FSE / PTEE

Claudia Dantuma-Wering
Eelko Hak
Katja Taxis

Introduction

The recently developed educational module, "Reducing Pharmaceuticals in Water," within the University of Groningen's Pharmacy Game, enhances knowledge and awareness of the impact of pharmaceuticals in water among pharmacy students¹. The objective of this study is to assess the suitability of the module to facilitate active and lifelong learning within the professional domain of practicing pharmacists.

Method

This was a mixed method study. First, we evaluated (June 2023) if the content offered in the module was known among the practicing pharmacists and what their attitudes were towards green pharmacy, using a previously developed questionnaire¹. Then, we invited pharmacists to follow (3 hours) and assess (20 min) the relevance of the module for community/ hospital pharmacists (July-August 2023). In a newly developed survey, a five-level Likert-scale was used to assess module (video) content and design, and open questions to collect additional suggestions.



Results

Fifteen participants (60% female, 40% male) answered the knowledge questionnaire scoring 10.47 out of 22. Two hospital pharmacists followed and evaluated the module, scoring the content relevance with mean score 4.3 and the design with 4.7 out of max 5. Suggestions concerned attributing the content with examples of environmental impact evaluation, sources facilitating easy access of information for pharmacists in practice, and suggestions to enhance technical options such as watching the videos faster or adding subtitles for better clarity.

123

Conclusions

There was a lack of knowledge of practicing pharmacists about the environmental impact of pharmaceuticals indicating the need for further education. The module was found suitable for practicing pharmacists to facilitate active and lifelong learning.

Literature

1. Fens T, Moermond CTA, van der Maas P, Dantuma-Wering, C, Lestestuiver GH, Szperl A, Schuiling LCM, Hak E, Taxis K. Reducing Pharmaceuticals in Water, a New Module Integrated in the Pharmacy Game: Evaluating the Module's Effects on Students' Knowledge and Attitudes. *Pharmacy*. 2024. 12, 28.

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1671

124

16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme III:LIFELONG LEARNING

A qualitative study exploring factors that affect pharmacists' involvement in asthma care services in Kuwait.

Amnah Taqi

Newcastle university

Adam Rathbone
Gill Rowlands

Introduction

Asthma is a respiratory disease caused by chronic airway inflammation in the lungs that constricts the airway and increases mucus production (WHO, 2020). Asthma is considered the most common chronic disease of people living in Kuwait (Abul et al., 2001). Pharmacists can play key roles to support health outcomes for patients with asthma.

Method

Pharmacists were recruited via convenience sampling and passive snowballing techniques. Qualitative, online semi-structured, interviews were conducted via Zoom. Recorded interviews were transcribed verbatim and analyzed utilizing NVivo® 11 software. Data were inductively analyzed to identify themes using the Braun and Clarke framework. Ethical approval was obtained from Newcastle University and Ministry of Health, Kuwait.

Results

Fifteen interviews with pharmacists were conducted. The sample consisted of more females (n=13) than males (n=2). Most pharmacists worked in primary care centres located in the capital district (n=7). Two main analytical themes identified 1) identity 2) expectations. Participants appeared to have different level of knowledge about asthma medications and



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guidelines, and this create different professionals' identities that may affect their involvement in providing information and exercising some judgments. Also, pharmacists viewing themselves less significant than physicians might discourage collaboration with physicians. Patients' expectations also influenced the services provided by pharmacists in asthma care. If patients only want to dispense their medication, the pharmacists will act as dispensers only and if they expect more from them, they will provide more services. Participants appeared to behave according to their expectations based on uncertainty created by existing legal and regulatory frameworks, as working outside of these was beyond expectations.

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Conclusions

Both professional identity and expectations seem to impact the role of pharmacists in asthma management in Kuwait. A limitation of this study is that pharmacists were mostly from the capital so findings may not be applicable to the whole of Kuwait.

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1678

126

16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme III:LIFELONG
LEARNING

PHARMACEUTICAL RISK MANAGEMENT EDUCATION

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University Of Malta

Matthew Borg
Lilian M Azzopardi

Introduction

Risk management helps in the decision-making process within a pharmaceutical environment by highlighting risks involved and providing strategies to minimise them, requiring professionals to have the knowledge, skills and behaviours to meet the demands of an increasingly complex and challenging pharmaceutical landscape. The aim was to assess the competences acquired by post-graduate pharmacy students with respect to risk management.

Method

Students following the Master of Science in Pharmaceutical and Regulatory Sciences acquire skills of estimating and managing risk in pharmaceutical processes. As part of the course fulfilments, students carry out a dissertation with a topic of choice. One particular topic revolved around the principles of risk and risk management in the pharmaceutical industry. A literature review to understand the current state of research on risk assessment within a pharmaceutical environment was undertaken, followed by the development and validation of a risk assessment tool, based on two change controls carried out by a local pharmaceutical industry. Risks associated with the identified change controls were assessed through a focus group. The Failure Mode and Effects Analysis was used as the risk assessment tool.

Results



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Two change controls, 'Update of dissolution method' and 'Update of product carton artwork', were identified through frequency counts issued between January and November 2023. Twenty-one and eight risks were identified for the two change controls respectively, and illustrated on two Fishbone diagrams. Risks were quantified and mitigating strategies for the top three ranking risks were proposed. The key competences acquired by students include principles behind risk practices, application of such practices in the real world, and skills in risk mitigation.

Conclusions

The competences acquired through the incorporation of pharmaceutical risk management in the pharmaceutical industry in the post-graduate programme, help students to merge practical occurrences with scientific risk management principles to be applied with confidence in today's pharmaceutical environments.

Literature

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poster

Abstract ID = 1691

128

16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme III:LIFELONG LEARNING

University of the Third Age as a Tool for Pharmaceutical Education of Seniors

Slavomir Kurhajec

University of Veterinary Medicine and Pharmacy in Kosice

Introduction

The University of the Third Age (U3A) is an international movement whose aims are the education and stimulation of mainly retired persons of the society — those in their third 'age' of life. The University of Veterinary Medicine and Pharmacy in Košice, in cooperation with the Technical University of Košice, provides education for seniors through U3A in the Pharmacy study program.

Method

The education of seniors takes place mainly in the form of lectures, which are provided by teachers – experts in the relevant field. U3A also includes an excursion in the university's chemical laboratory and the university's garden of medicinal plants. Each semester at the U3A ends with passing an exam in the test form. After the successful completion of the entire 3-year study students are presented with attendance certificates at the graduation ceremony.

Results



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The first year of study has a general focus. The audience listens to selected lectures from various fields. After completing the first year of study, students choose a field in which they want to continue. There is huge interest in the field of Pharmacy, as students – seniors try to learn as much as possible about their diseases, its prevention or proper pharmacotherapy. The Pharmacy study program in the second and third years offers selected lectures, a large part of which is devoted to natural drugs, which are a frequent part of nutritional supplements that seniors often use as part of self-medication.

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Conclusions

The U3A does not only have an educational character, but it really helps seniors to make new acquaintances and friendships and thus acquires a social dimension as well.

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1695

130

16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme III:LIFELONG LEARNING

Pharmacists role on benzodiazepines' deprescribing interventions, a scoping review.

Fatemah Ashkanani

Newcastle University

Laura Lindsey

Adam Pattison Rathbone

Introduction

Polypharmacy can increase the risk of adverse drug events, hospitalisation, and unnecessary healthcare costs. Evidence indicates that discontinuing certain medications, such as benzodiazepines, can improve health outcomes, by resolving adverse drug effects. This scoping review aims to explore the pharmacists' role in deprescribing benzodiazepines.

Method

A scoping review has been conducted to distinguish and map the literature, discover research gaps, and focus on targeted areas for future studies and research. A systematic search strategy was conducted to identify relevant studies from PubMed, Medline, and EMBASE databases. The eligibility criteria involved studies that focused on the role of pharmacists in benzodiazepine deprescribing, quantitative and qualitative studies conducted in humans, full-text articles published in English.

Results

Twenty studies were identified, revealing three themes: 1) pharmacists' involvement in benzodiazepine deprescribing, 2) the impact of their involvement, and 3) obstacles impeding the process. Pharmacists involved in deprescribing procedures, mainly through completing medication reviews, collaborative work with other healthcare providers, and education.



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Pharmacists' involvement in benzodiazepine deprescribing intervention led to better health and economic outcomes. Withdrawal symptoms after medication discontinuation, dependence on medication, and lack of time and guidelines were identified in the literature as barriers to deprescribing.

Conclusions

Pharmacists' involvement in deprescribing benzodiazepines is crucial for optimizing medication therapy. This scoping review examines the pharmacists' role in benzodiazepine deprescribing. The findings contribute to enhancing healthcare outcomes and guiding future research in this area.

Literature

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2024 EAFP annual conference Abstracts

poster

Abstract ID = 1700

132

16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme III:LIFELONG LEARNING

THE CONTENT AND ORGANIZATION OF CONTINUOUS PROFESSIONAL EDUCATION IN ESTONIA – FEEDBACK FROM PHARMACISTS AND TRAINING PROVIDERS

Daisy Volmer

University of Tartu

Brett Marie Kaljus

Ain Raal

Kristiina Sepp

Introduction

In order to stay updated with the continuous advancements in the pharmacy, the continuous professional education (CPE) system for pharmacists has been made mandatory in Estonia since 2015, but no structured framework for continuous professional development (CPD) has yet been developed.

The study aimed to map the opinions of pharmacists and training providers regarding the professional competencies, transferable skills covered, and organization of CPE in Estonia.

Method

Mixed method: a community pharmacy (N=479) based quantitative survey among pharmacists, qualitative interviews among CPE training providers (two pharmacy schools and three professional organizations).

Results

Responses were received from 100 pharmacies (21%). Pharmacists were independent in finding CPE courses; 38% would be willing to study longer to acquire a micro degree.



Respondents prioritized professional knowledge in pharmacotherapy and medication review (74%), new trends in pharmaceuticals (71%), professional collaboration and teamwork (58%), digital competencies (56%), health promotion, and communication skills (both 39%). Majority (80%) of respondents considered online training convenient and practical compared to classroom lectures, which were mainly skipped due to the heavy workload. Compared to in-person training, online training also allows knowledge assessment. Reading articles (79%), visiting professional websites, attending conferences (both 51%) and consulting with colleagues (47%) were more frequent examples of individual CPD. CPE providers highlighted a need for a more unified CPE system and implementation of additional learning methods alongside attending lecture-based trainings.

Conclusions

Pharmacists assessed the current CPE as valuable and effective. However, it was noted that currently, the only requirement is to collect the CPE hours, but the content of the trainings is not systematized. In the future, the current CPE system would need to be updated, including the additional learning methods, and the creation of a CPD framework should also be considered in order to more effectively support the professional development of pharmacists.

Literature

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poster

Abstract ID = 1710

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16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme III:LIFELONG LEARNING

Life long learning for educators The FIP Global Competency Framework for Educators & Trainers in Pharmacy (FIP-GCFE)

Arijana Mestrovic

Pharma Expert 273657467

Introduction

Being an educator in Pharmacy Profession is an honourable and inspiring mission, deeply rooted in our responsibility to assure the highest quality of educational activities for our learners. This unique journey of mentorship often includes much more than just lecturing and assessing the learners' competence and achievements. Interpersonal professional connections and impact on someone's motivation and commitment to change are indeed inspiring and rewording for us as educators. Therefore, understanding the importance of our own reflection, evaluation and plan in continuing personal and professional development is essential to fulfil our noble role in nurturing our full integrity and authenticity.

Method

The first FIP *Global Competency Framework for Educators & Trainers in Pharmacy (FIP-GCFE)* was recently published lead by the team of experts, diverse in their fields of expertise and rich in cultural, regional and professional diversity.

Results

The GCFE was derived from FIP rich experience in creating tools for both competence evaluation and development. Respecting various regional and professional contexts for educators' development, the structure of the Framework leads to the process of self-evaluation, reflection, and individual planning the advancing stages for any educator and trainer in Pharmacy. Behavioural statements are designed to describe a desired outcomes and impact to be achieved and maintained. References and resources are covering and assuring the strong bases in science, practice, and ethics, following the principles of the FIP Advanced



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Global Development Framework (GADF), as well as the Pillars and Foundations of Educational Quality in pharmacy education.

Conclusions

It is the time to advance and take the exciting journey of continuing development with The FIP Global Competency Framework for Educators & Trainers in Pharmacy! This work will continue with educators' application, documentation and sharing stories and evidence of advancement.

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Literature

The FIP Global Competency Framework for Educators & Trainers in Pharmacy, The Hague, FIP, 2022

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poster

Abstract ID = 1711

136

16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme III:LIFELONG LEARNING

THE MUSEUM OF HISTORY OF PHARMACY OF SEVILLE (SPAIN): EAFP, FROM KRAKOW (POLAND) TO BERGEN (NORWAY).

Antonio RAMOS CARRILLO

University of Seville

María ÁLVAREZ DE SOTOMAYOR PAZ

Cecilio J. VENEGAS FITO

Juan NÚÑEZ VALDÉS

Raquel C. CUELI TRELLE

Rocío RUIZ ALTABÁ

Introduction

At the 2019 EAFP congress in Krakov we said the following:

“This communication focuses on possibilities of the use of digital technology to drive the Museum of History of Pharmacy of Seville (Spain) and our engagement with the society and the pupils of the Faculty of Pharmacy of Seville ...

We pretend to create new experiences for audiences and students, exploring the boundaries of new technology and internet tools and thinking of creative ways to apply it”.

Method

- The study of the heritage exhibited in the Museum of History of Pharmacy of Seville.
- The employment of new technologies as tool for scientific dissemination.

Results



What have we done from 2012 to May 2024?

-Poster at international scientific conference: XLIV International Congress of the History of Pharmacy. Washington DC (USA), 2019.

-Scientific exhibitions at International Congresses: FIP (Seville, 2022) and Panama (37th Central American and Caribbean Congress, 2023).

- Scientific documentaries where researchers, teachers and students are also the actors.

Pioneers of Spanish pharmacy. Meetings at the Museum of the History of Pharmacy. (2022).

- Scientific documentaries with professional actors.

Pharmaceuticals and America. Between Science and Commerce. (2023).

- Articles about the Museum in the Spanish press.

- Visitors make donations with non-perishable food for soup kitchens (San Juan de Dios, Seville).

- High-level scientific publications (Dickinson publishing house).

Conclusions

1. Student learning is favored with the use of new Technologies applied to the Museum.
2. The social perception of the importance of the pharmacist in health is favored by the Museum.
3. We can always find new possibilities to take advantage of the Museum to disseminate the history of pharmacy, science and social aid.
4. The promotion of the scientific heritage of universities through technology is possible.

Literature

1. <https://institucional.us.es/museohistfarm/museo/>
2. Ruiz R, Ramos A. Museo de Historia de la Farmacia de Sevilla. Una colección universitaria docente y de divulgación científica. Cabás, 2017; (17): 50-67

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1713

138

16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme III: LIFELONG LEARNING

KNOWLEDGE AND SKILLS RELATED TO HEALTH LITERACY AND MEDICINES – COURSE DEVELOPMENT FOR NON-PHARMACY STUDENTS

Tünde Ambrus

Masaryk University, Faculty of Pharmacy

Lenka Smejkalová
Dominik Grega
Martina Šutorová
Jozef Kolář

Introduction

In recent years, Masaryk University (Brno, Czechia) has been implementing the project of Common University Courses that allow students enrolled in various degree programmes to gain a basic overview of a wide range of disciplines and to broaden their education beyond the focus of their field of studies. The module of Common University Courses includes various selective courses (CORE courses) in natural sciences, social sciences, and humanities.

Method

We aimed to develop a CORE course for non-pharmacy students at Masaryk University. The main objective of the course is to increase students' health literacy in medicines by providing basic knowledge and skills related to the medicines used in everyday life. The preparation of the course was based on a literature review and current experiences in the pharmacy students' teaching, and the team members also attended several workshops to improve their pedagogical competencies. The course development was supported by the project of Masaryk University MUNI/CORE/0729/2022.



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Results

As a result of the project, a new course called “Medicines in Everyday Life in the 21st Century” was prepared and offered for registration. The course includes topics related to the problem of medicines as a specific category of goods, their availability and provision, differences between medicines and other health-related products, medicines in households, economic aspects of providing and using medicines, and information sources about medicines for the public.

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Conclusions

After completing the course, the student will be able to characterize medicines and their importance in the life of an individual and society, distinguish individual categories of health-related products, apply the principles of correct handling of medicinal products in everyday life, know the patient rights and obligations concerning the provision of pharmacy care, and to use the basic relevant sources of information regarding medicines.

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1728

140

16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme III:LIFELONG LEARNING

Pilot project: Integrating pharmacy studies into the wider social environment through science communication

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Faculty of Pharmacy, University of Ljubljana

Borut Božič

Introduction

The ability to work individually and communicate professionally with patients, public, and doctors is one of the general competencies of a pharmacist. Students of the Uniform Master's study programme Pharmacy are expected to strengthen these skills through their studies. However, traditional curricula often lack the practical opportunities for real-world interaction. Our project seeks to address this gap by enabling students to respond to public inquiries, sharing expert responses on social media platforms while upholding professional ethics. The aim of the project is to apply the students' theoretical knowledge effectively in practise through professional communication, as well to strengthen the bond between students and professors.

Method

Twenty-four students, enrolled in the Immunology course, joined a professional team in the Facebook group Science Mamas's Forum, administrated by university teachers. In guided groups of 3, students will select a current immunology-related public question. Relevant literature from various databases will be selected and reviewed by the students. Answers will be summarized in a short article and infographics, suitable for posting on Facebook and Twitter. A 5 minutes student presentation will be given in class, articles will be posted on social media.



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Results

Students have written 6 longer articles (4000 characters each), condensed into 6 tweets and appealing infographic for a large-format poster. Material was published on the online platform Facebook, groups Science Mamas Forum (reaching of approx. 4,000) and Faculty of Pharmacy (1000 members).

Conclusions

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We assess that students have gained additional knowledge beyond the existing content of the Immunology course, especially how to search for scientific literature and to summarize scientific information, and developed new skills in using new software for poster creations. They strengthened two-way communication and learned approaches for communicating pharmaceutical content to the general public. Mentors played a crucial role as professional advisors and motivators, guiding groups to successful result.

Literature

2024 EAFP annual conference Abstracts

poster

Abstract ID = 1729

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16/05/2024 - 12:01-12:02 - Poster Exhibition on Theme III:LIFELONG
LEARNING

YOUNG RESEARCHERS DEVELOPMENT STRATEGIES

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Medical University of Plovdiv

Stanislava Ivanova
Diana Karcheva-Bahchevanska
Elisaveta Apostolova
Valentin Turiyski
Anelia Bivolarska
Denitsa Kiradzhiyska
Kalin Ivanov

Introduction

Educating future pharmacists is a privilege, bringing with it a huge responsibility to not only provide a good education but also to prepare young people for success and job satisfaction. After graduation, most of our students decide to continue their “pharmaceutical journey” as healthcare professionals at hospital or community pharmacies. Pharmacy could provide an amazing and interesting career. However, we feel it is our personal responsibility to find out our students’ specific talents, develop their qualities, broaden their interests, and help them find different job opportunities. Some of our students have shown great potential to become successful researchers.

Method

To discover and inspire these future researchers we have developed several free elective courses. Some of these courses are focused on science and prepare young people for academic research. Usually, these courses target small groups of students.



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Results

During the courses, the young people are taught how to search for relevant information in books, scientific articles, or other sources. Moreover, our courses help the students to acquire specific skills such as: working with analytical instruments, isolating pure substances or essential oils, or developing a research plan. Another important focus of our optional courses is to foster young people's confidence, enhance their teamwork and communication skills, and involve students in research projects, scientific papers or presenting results at scientific conferences. However, the most important point remains that these courses could inspire some of our students to continue their education as Ph.D. students, to become assistant professors, or to choose a research career.

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Conclusions

Nowadays, our society lives in exciting but also highly demanding, difficult and rapidly changing times. The need for open-minded, honest, and creative scientists is high. We believe that our free elective courses are important key points in providing outstanding, modern, and progressively thinking young researchers.

Literature