

CONFERENCE ABSTRACTS

Pharmacy Education Conference abstracts 2025

Manchester, United Kingdom

Oral presentations and workshop contributions

Walking in a patient's shoes: Evaluation of an immersive workshop for pharmacy students

Dipa Kamdar 

Kingston University, London, United Kingdom

Background: Providing person-centred care is one of the General Pharmaceutical Council (GPhC) standards for pharmacy professionals (GPhC, 2017). Use of equipment like ageing simulation suits can foster students' empathy towards ageing and disability (Ozdemir *et al.*, 2023). This can be demonstrated in practice by adapting communication, e.g., recognising hearing or sight limitations, speaking slowly and providing more time. Empathetic care is associated with patient satisfaction, compliance with treatment and better diagnostic accuracy (Karvelytė *et al.*, 2021).

Aims: To evaluate pharmacy students' experiences of a 'Walking in a Patient's Shoes' immersive workshop.

Methods: Workshops for first-year MPharm and second-year foundation degree pharmacy students were co-designed with a physiotherapist and occurred in the first week of the course. Students completed activities using simulation equipment e.g. visual impairment glasses, ear defenders, arthritis simulation gloves, ageing suits, crutches and wheelchairs, followed by discussions of solutions and inclusive practice. Students completed post-workshop surveys. Ethical approval was not required as requirements of teaching evaluation were met.

Results: Student response rate was 86% (n=205/239). 90% (n=184/205) students strongly agreed they gained an understanding of empathy and compassion for a variety of patients. 92% (n=188/205) gained appreciation of the impact of health on a person's life. 100% students agreed using the equipment allowed them to understand how patients can feel

in their daily life. Qualitative feedback indicated students found the workshop to be interactive and insightful. Improvements included more equipment and time at activities.

Conclusion: Students developed empathy and compassion by experiencing some challenges faced by patients with sensory or physical disabilities. Simulation cannot replicate disability or impairment but can promote recognition of challenges and empathetic attitudes (Karvelytė *et al.*, 2021). Subsequently, students completed reflective accounts. Simulation scenarios were adapted to incorporate such patients enabling students to demonstrate empathy and practise strategies for adapting communication and inclusive care.

Fostering collaborative excellence: Pharmacy students' perceptions of an interprofessional numeracy workshop

Paul McCague, Daniel Donnelly, Chris Spence, Marian Traynor, Billiejoan Rice

Queen's University Belfast, Belfast, United Kingdom

Background: Interprofessional learning (IPL) involves learners from two or more health professions collaborating in a shared educational environment. It is critical for preparing students to deliver patient care in collaborative team settings and is embedded within the General Pharmaceutical Council's (2021) training requirements. At Queen's University Belfast, IPL is integrated throughout the MPharm curriculum using diverse methods, including online platforms. One such workshop involves Year 1 pharmacy students and nursing students engaging in interprofessional numeracy training.

Aim: This study aimed to evaluate pharmacy students' perceptions of IPL, focusing on the Year 1 online numeracy workshop.

Methods: Following ethical approval, a 27-item paper-based questionnaire, incorporating elements of the SPICE instrument (Fike et al., 2013), was distributed to Year 1 pharmacy students (n=141) who participated in the IPL workshop. Descriptive statistics were used to analyse responses, while a content analysis was applied to free-text comments.

Results: A total of 122 students completed the questionnaire (response rate: 86.5%). Quantitative analysis revealed high overall satisfaction, with a mean Likert score of 4.03/5. Thematic analysis identified themes including teamwork, communication and patient safety. A notable 97.5% of students strongly agreed or agreed that patient satisfaction improves when care is delivered by an interprofessional team. Most students (75.2%) strongly agreed or agreed they would recommend the workshop to others. Suggestions for enhancing the workshop included an having an in-person component, balanced group composition, and more challenging numeracy questions.

Conclusion: This study highlights the positive perception of pharmacy students toward the interprofessional numeracy workshop, particularly regarding teamwork, communication and patient safety. The results also demonstrate the potential of online platforms, for facilitating effective interprofessional learning, offering flexibility while promoting collaborative skills. Further research, incorporating feedback from nursing and other healthcare students, will provide deeper insights into the broader benefits and challenges of IPL in enhancing collaborative practice.

Useful skills for practice- student pharmacist views on a workshop to aid patients swallowing tablets and capsules

Alice Patricia McCloskey, Alison Jane Devine, Barry James Thomas Donaghue, John Patrick Donnelly, Sally Wright, Ali Walker, Peter Edward Penson, Ian James Cubbin

Liverpool John Moores University, Liverpool, United Kingdom

Background: This builds on our previous study where student pharmacists completed KidzMed e-learning (a tool to teach children how to swallow tablets and capsules (pills)). Students valued the learning and relevance to future practice; however, reported a desire for hands-on experience. As such a face-to-face workshop was designed to accompany the e-learning. (McCloskey et al., 2023)

Aims This study aimed to: Explore student pharmacists' own experiences of swallowing pills, expose students to hands-on


practice in a workshop and evaluate student views of this workshop

Methods: University ethics was obtained (PBS/2020-21/04). Student pharmacists in 2nd and 4th year of the MPharm at the study site were included. Students completed KidzMed e-learning as previously described, prior to attending a timetabled 90min workshop on campus. Here they were briefed on the topic and applied their learning using simulated practice. They completed a voluntary pre and post workshop questionnaire via MSForms to capture their pill swallowing experiences and views of the learning.

Results: Overall, 235/288 (82%) eligible students completed the pre-questionnaire. Screening showed that student pharmacists are sometimes afraid of swallowing pills (11.9%). Most had no reservations about teaching children this skill (210/235), however some had concerns about choking/lacked confidence dealing with paediatric patients. The post-workshop questionnaire was completed by 140 students. They felt the learning was useful for practice and would enable them to support both adults and children swallowing pills. They enjoyed the workshop's interactive nature and would recommend it to a colleague/friend.

Conclusions: It is important to teach student pharmacists skills that are relevant to practice. Pill swallowing difficulties are often overlooked in "healthy" patients, this study is an example of listening and acting on student feedback to improve content delivery around an important skill for practice and demonstrates the value of hands-on experience in undergraduate pharmacy education.

Evaluation of the impact of Making Every Contact Count (MECC) training on MPharm students at the University of Portsmouth

Nicola Barnes¹ , Mahasin Newaz², Robert Anderson-Weaver³

¹University of Portsmouth, Portsmouth, United Kingdom

²University of Portsmouth, Portsmouth, United Kingdom

³Portsmouth City Council & NHS E, Portsmouth, United Kingdom

Background: Making Every Contact Count (MECC) is a public health strategy in England which focuses on utilising every point of contact with an individual to promote healthy behaviour change by using healthy conversation skills (HCS).^{1,2} For healthcare professionals, including pharmacists, MECC acts as a framework for behaviour change interventions. For patients, MECC aims to act as a bridge that will lead them to making healthier lifestyle choices by seeking support and acting through the brief interventions with MECC-trained staff. To support pharmacy students to

develop HCS and apply these whilst participating in a hypertension case finding placement, MECC training was introduced at the start of their final year of undergraduate study.


Aim: To evaluate the impact of MECC training to MPharm students at the University of Portsmouth.

Methods: Anonymous online surveys collected quantitative and qualitative data at three time points, pre and post MECC training and post placement. Responses to the pre and post MECC training questionnaires were compared; all data were further analysed via descriptive statistics and where appropriate content analysis.

Results: 100% (n=17) of respondents to the post-MECC training survey stated they found the MECC training valuable, increasing their confidence in supporting individuals to make lifestyle changes. Post-placement, 75% (n=15) of students stated that they used MECC skills during their placement, with 100% (n=20) stating that they expected to use HCS in the future. 25% (n=5) of participants in the post-placement survey further stated that they had changed their own health-related behaviour post-MECC training.

Conclusion: The study provided insight into the positive impact of MECC training on pharmacy students, both in their professional and personal lives, supporting healthy lifestyle choices for patients and the future pharmacy workforce.

How do pharmacy professionals on a national learning pathway, Primary Care Pharmacy Education Pathway (PCPEP) find group tutorial support impacted their learning and journey on the pathway and practice

Rachel L Kenward, Caroline Barraclough , Alison Butt, James Higgerson, Sally Greensmith, Matthew Shaw

CPPE, Manchester, United Kingdom

Background: CPPE introduced tutorials to support groups (Mukurunge 2020) of pharmacy professionals more effectively using peers and educational supervisors (Styles 2023). Previous analysis of the data (Kenward 2023) indicated a positive learner experience. Further analysis was required to understand which aspects of the tutorials impacted learners' experience.

Aim: To describe primary care pharmacy professionals' perceptions of tutorials and identify how and in what way tutorials supported learners on PCPEP.

Method: Secondary thematic analysis of responses to one question from the PCPEP end of pathway survey (for those completing between March 2022 and September 2023); please describe your experience of group tutorials and how they supported or challenged your learning. Three researchers themed the data together to ensure there was a consistent approach. Ethical approval was not required.

Results: 3230 learners (1367 respondents): The majority commented they had a positive experience of the online tutorials to support them. The respondents provided a wide range of ways tutorials supported their learning pathway and practice roles. Leading benefits were identified around the value of peer support, relationship building in both professional and personal contexts, providing a space where learners could freely explore concerns and challenges. Having mixed groups of pharmacy professionals present was seen more as a positive than a negative. From a minority of respondents providing negative perspectives, leading themes linked to the professional mix in the groups, or working in the same geographical area.

Conclusion: Tutorials were found to be a positive element of an extended learning pathway. They provided opportunities not found elsewhere in PCPEP to form close relationships, build networks and provide a range of peer support. Further evaluation of the data is required to understand the role of tutorials and how they can affect onward learning (lifelong learning) for pharmacy professionals who have undertaken this extended learning pathway.

Does practice make perfect? Exploring the correlation between exercise completion and assessment success in MyDispense

Matthew O Ivory , Rhian E Deslandes 

Cardiff University, Cardiff, United Kingdom

Background: MyDispense has been used in Cardiff University for first-year dispensing teaching and assessment since 2018. Prescription validation (comprising legal and completeness checking), labelling and dispensing are taught in a step-wise manner. Students then have access to a total of 220 prescription exercises (120 prescription validation, 50 labelling and 50 dispensing) for independent practice prior to the corresponding high-stakes assessment.

Aims: We investigated the relationship between Cardiff MPharm1 students' engagement with MyDispense exercises and assessment outcomes, building on similar work by Slater et al (2023).


Methods: Total exercise completions (students are able to reset and complete exercises more than once) were collated

up to the summative assessment for the academic years 2020-21 to 2023-24. Students were grouped based on whether they passed or failed the assessment and the number of exercise completions within each population was compared using descriptive statistics and significance calculated via an unpaired t-test. Ethics approval was provided (CU SPPS REC reference: 2425-23).

Results: 633 students sat the dispensing assessment across the 4-year data period, with 69.51% passing (n=440). Mean exercise completions were 88.82 and 63.99 for students who passed and failed respectively. The difference in means of 24.83 completed exercises was statistically significant ($p < 0.0001$; 95% CI 15.49-34.17). A wide range of engagement was seen within each population, with ranges of completed exercises from 7-591 and 1-323 in the passing and failing student populations respectively.

Conclusion: The study found a correlation between student exercise completion and assessment success which has been fed forward to students in subsequent academic years as a motivator for exercise engagement. The broad and overlapping exercise completion ranges between the populations of students who passed and failed the assessment suggest that MyDispense-based practice is not the sole driver of success though, a potential limitation of the work and an area for future investigation.

Pharmacy students involvement in Public Health Outreach Initiatives as part of final year electives for MPharm to help reduce health inequalities in CORE20Plus demographic in primary care

Sarah S Baig^{1,2} , Zahraa Jalal¹ , Samira Osman¹ 

¹University of Birmingham, Birmingham, United Kingdom

²Dudley Group NHS Foundation Trust, Dudley, United Kingdom

Background: Health inequalities remain a significant challenge in the UK, particularly in underserved populations identified as CORE20Plus groups, at higher risk of poor health outcomes due to socioeconomic deprivation (NHS England, 2021). Early detection and management of hypertension is crucial in reducing cardiovascular morbidity and mortality (NHS England, 2021). Pharmacists play a key role in public health initiatives, particularly through community-based screening (Kiles et al., 2021). To enhance student learning and community impact, a collaborative initiative was delivered involving pharmacy students in outreach activities to screen for hypertension and promote health awareness.

Aims: 1. To assess the impact of student-led public health outreach on the early detection of hypertension in

communities who may not routinely access healthcare. 2. To evaluate the pedagogical benefits of engaging students in real-world public health initiatives, enhancing their communication and clinical skills.

Method: Pharmacy students participated in multiple outreach events, including shopping centre screening, targeted interventions in a CORE20Plus area. Students were trained in automatic blood pressure measurement and worked alongside pharmacists and health coaches. Pharmacy technicians followed up individuals presenting with high readings. Over one week, 250 blood pressures were recorded, identifying 80 individuals with elevated readings.

Results: Of the 80 patients followed up, 25% were formally diagnosed with hypertension and coded as such. Student feedback indicated high levels of engagement, with particular improvements in communication, clinical skills, and understanding of health inequalities. Qualitative data from student reflections highlighted increased awareness of social determinants of health.

Conclusion: Community outreach provides students with invaluable experiential learning opportunities. This initiative reinforces the importance of integrating such activities into pharmacy curricula. Future work should focus on formal evaluation of learning outcomes and expansion of outreach models to other health faculties.

Using proprietary Generative AI (GenAI) platforms to produce pharmaceutical calculation questions

Chris Spence¹, Eliana McBride¹, Lisa Smith², Dan Corbett¹

¹School of Pharmacy, Queen's University Belfast, Belfast, United Kingdom

²Northern Ireland Centre for Pharmacy Learning and Development, Belfast, United Kingdom

Background: The ability to accurately and reliably perform pharmaceutical calculations is a fundamental skill for undergraduate, trainee, and qualified pharmacists (GPhC, 2021). Regular and consistent practice of these tasks is key to enabling mastery (Sheaffer and Addo, 2013). However, writing such questions can be onerous, limiting the volume of support available. There is scope to employ generative artificial intelligence (GenAI) to undertake this task.

Aim: To investigate the ability of widely accessible GenAI platforms to produce valid pharmaceutical calculation questions.

Methods: Custom tools were developed within three GenAI platforms, namely ChatGPT (OpenAI), Claude (Anthropic) and Gemini (Google), and subsequently utilised to generate calculation questions centred on creatinine clearance (CrCl), body surface area (BSA), or oral liquid dosing. A knowledge base which included relevant clinical information and example questions was provided to each tool during system training. System and generation prompts were also developed and optimised. Generated questions were scored against five evaluation criteria, namely question structure and clarity, answer accuracy, feedback provision, completeness and comprehensiveness, and content and authenticity (one point per criterion, five total points available). Descriptive statistics were used to compare overall question scores and individual criterion performance.

Results: 15 questions were generated by each AI platform (five per question type). Claude performed best overall (mean score: 4.2), followed by ChatGPT (3.3) and Gemini (2.7). Claude also performed best in two of the three individual question types (CrCl and BSA). Claude's concordance with individual scoring criteria ranged from 60%-100%, with answer accuracy the least frequently met criterion, most commonly due to rounding errors or incorrect use of provided formulae.

Conclusion: This work has identified that GenAI platforms show promise in generating valid pharmaceutical calculation questions, potentially enabling significant efficiencies in student support and assessment processes. However, care should be taken when selecting an appropriate GenAI model.

Developing and evaluating a simulation to support student pharmacists in responding to racism in practice

Ruth Edwards¹, Zia Rehman¹, Obaida Ahmed¹, Robert Spour², Adam Vasco¹

¹University of Wolverhampton, Wolverhampton, United Kingdom

²Meducate Academy, United Kingdom, United Kingdom

Background: In healthcare, racial discrimination constitutes a major barrier towards achieving equitable and responsive healthcare (Hamed et al. 2020). In a survey of job satisfaction in pharmacy, 28% of black pharmacists had experienced racism from colleagues (Price, 2024). For healthcare professionals and students, it adversely affects mental wellbeing, learning, attainment and aspirations (Ali et al., 2021). Research with nursing students has identified that a simulation would be a desirable method to prepare students to respond appropriately to racism in practice (Abaka-Jacobs et al., 2023).

Aims: To explore the impact of a simulation workshop on student pharmacists' experience of and confidence in speaking up about racism.

Method: Year 3 and 4 student pharmacists roleplayed a scenario co-created by a student-staff research team (consultation with patient refusing to be seen by anyone other than a white person) followed by a debrief on learnings. An online survey, consisting Likert style and open questions, was distributed before and after the simulation and data analysed with descriptive statistics and thematic analysis. Ethical approval was granted by an Ethics Review Board.

Results: There were 165 participants in the simulation (range of ethnicities) and most reported learning from the event. Thirty-three (20%) responded to the survey (all SE Asian heritage) with a small increase in confidence in responding to racial discrimination before and after the simulation (mean confidence scores of 2.94/5 and 3.35/5 respectively). Participants reported finding the simulation uncomfortable and challenging, but all reported learning more on handling racism in a professional manner.

Discussion: This is the first reported activity of using simulation to support students in responding to racism in practice. Despite the survey response small sample size (preventing comparative statistics) and single ethnic group the simulation ran successfully. Educators should consider integrating into MPharm curricula, with experienced actors and facilitators to ensure psychological safety.

CONFERENCE ABSTRACTS

Pharmacy Education Conference 2025

Manchester, United Kingdom

Snapshot presentations and electronic posters

Staff and student perceptions on the teaching and assessment of professionalism within the MPharm programme

Maria D Allinson¹ , Suzanne Cutler² 

¹University of Sheffield, Sheffield, United Kingdom

²University of Liverpool, Liverpool, United Kingdom

Background: The GPhC Standards for the Initial Education and Training of Pharmacists (GPhC, 2021) places importance on developing the professionalism of students to ensure that they are prepared for future practice, which will see pharmacists increasingly in patient-facing roles, including prescribing. Teaching and assessment of professionalism is therefore an important aspect in any new MPharm curriculum.

Aims: This study aimed to ascertain views on professionalism, its teaching and assessment, which was based on the 2011 GPhC Standards in two English universities and also how it could be improved when designing the curriculum to align with the 2021 Standards.


Method: During October 2023, all academic staff and students studying in their third and final year of the MPharm, which was based on the 2011 curriculum, were invited to participate in semi-structured interviews. These were recorded on MS Teams, transcribed verbatim and combined for thematic analysis. Ethics approval was obtained at both institutions.

Results: Seventeen students and 16 staff members had interviews lasting 20 to 40 minutes. There were no major differences in response from the two schools. Three themes emerged from the study: staff and students' understanding of professionalism; relevance of professionalism; and teaching

and assessment of professionalism. Both groups demonstrated some understanding of professionalism and stated that addressing professionalism was relevant. Staff specifically highlighted poor engagement with classes as being unprofessional. Students said they learned about professionalism most effectively through dispensing classes and simulation. Suggested improvements to incorporate into the 2021 curriculum included an increase in the amount of university-based teaching and assessment on professionalism and critically, more time to develop professionalism on placements.

Conclusion: Whilst a small study across only two institutions, findings suggest that both the teaching and assessment load of professionalism within the 2021 curriculum could be increased, whilst students feel time on placement is key to developing professionalism.

MPharm 4 students' perceptions of prescribing and the support they need in their foundation training year

Varshagini Paheerathan, Annabel Healey 

King's College London, London, United Kingdom

Background: In 2026, pharmacists in the UK will qualify with an independent prescriber (IP) annotation on registration with the General Pharmaceutical Council (GPhC). The MPharm degree now incorporates prescribing (GPhC 2021), the first cohort to qualify with IP is the current MPharm 4 students.


Aim: To explore King's College London (KCL) pharmacy students' perceptions of prescribing and identify the support required as they train to become prescribers.

Method: Minimal risk ethics was approved on 10/07/2024. A questionnaire was developed incorporating confidence scales, Likert questions and free-text questions. The questionnaire was created on Qualtrics and distributed to MPharm 4 students at KCL via email & Whatsapp. Quantitative data was analysed using SPSS software and free-text data was analysed using a reflexive thematic approach.

Results: The questionnaire had a 47%(n=57) response rate. Majority (94%n=54) of students feel that prescribing will enhance their professional identity and 76%(n=43) are excited to become a prescribing pharmacist. However, 62%(n=35) reported that prescribing makes them feel anxious, common themes for the reasons for anxiety were: responsibility, fear of mistake and harm, inadequate prescribing training/experience, uncertainty of scope and expectations from other healthcare professionals. Similar themes were seen when students were asked about their concerns related to prescribing; additional themes around concerns were: lack of confidence in own ability, lack of support and pressure to prescribe outside of scope. Common themes for support and further training they would require during their foundation training year (FTY) were: shadowing prescribers and observational learning, supervised prescribing practice with feedback and case-based and practical learning.

Conclusion: MPharm students need better clarity on their scope and role in the qualification to help alleviate some of their concerns & anxieties around prescribing. In addition, the role of the designated prescribing practitioner providing supervision, ensuring sufficient prescribing support during the FTY, will be essential.

The use of interactive fiction in learning from failure in postgraduate pharmacy education

Aileen C McKenna 

Queen's University, Belfast, United Kingdom. Lancaster University, Lancaster, United Kingdom

Background: Interactive Fiction (IF) is a type of gamebook in which players make decisions to control the narrative, and experience the consequences of their decisions. IF use with undergraduate students has been effective in learning from error and enhancing clinical decision-making skills (Morningstar-Kywi & Kim, 2021). These potential benefits have not been investigated with postgraduates however (Smith et al, 2024).


Aim: To assess the impact of IF as a pedagogical tool for postgraduate distance-learning pharmacists.

Methods: Ethics approval was granted by Lancaster University. This mixed-methods study utilised anonymous questionnaires (distributed to students via the Canvas virtual learning environment) comprised of Likert-scale and open-ended questions. Complementary individual interviews with graduating students were conducted and transcribed using Microsoft Teams. Quantitative analysis was performed using SPSS. Thematic analysis of qualitative data was performed in NVIVO 14 through the lens of Green and Jenkins (2014) conceptual model of interactivity effects in IF.

Results: 27 questionnaires and 5 interviews were completed. 100% found the IF beneficial and valuable for learning from error and the consequences of poor-decision making. 100% reflected on their usual practice, with 92.6% reporting processes of deeper reflection and indicators of improved longitudinal knowledge construction. 92.6% stated their experiences with IF were also beneficial to clinical practice. 48.1% enacted real-life changes. 81.5% reported increased learning and actively enjoyed safely exploring the consequences of poor decision making. All interviewees reported that the realistic scenario enhanced reflection, improved knowledge recall, heightened responsibility for patient outcomes, and increased enjoyment.

Conclusion: The results of this study demonstrate the potential for IF to be used in a variety of clinical and non-clinical scenarios of varying complexity to provoke reflection on both academic and professional knowledge, and to improve decision making skills. Impact appears to be enhanced due to the dual identities that participants wield as both pharmacists and students.

A multi-sector simulated experiential pharmacy practice event for 1st year MPharm students in Northern Ireland

Niall O'Boyle^{1,2} , Melissa Smyth³, Una Larkin⁴, Roisin O'Hare^{5,6}

¹Queen's University Belfast, Belfast, United Kingdom

²Pharmacy, South Eastern Health and Social Care Trust, Belfast, United Kingdom

³Pharmacy, Northern Health and Social Care trust, Coleraine, United Kingdom

⁴Pharmacy, Western Health and Social Care Trust, Enniskillen, United Kingdom

⁵Pharmacy, Southern Health and Social Care Trust, Portadown, United Kingdom

⁶University of Ulster, Coleraine, United Kingdom

Background: Simulation-based education is an established teaching method that improves pharmacy students clinical abilities, confidence and development of critical thinking (Al-

Worafi 2023) (Fidler 2020). The formation of professional identity of pharmacy graduates has also been shown to be directly related to understanding the role of a pharmacist (Noble 2019). The Simulated Experiential Pharmacy Practice Event has been created for 1st year undergraduate pharmacy students to develop their consultation and prescribing skills.


Aim: To evaluate via questionnaire, 1st year pharmacy students' experiences of a Simulated Experiential Pharmacy Practice Event.

Methods: All 1st Year students within both university Schools of Pharmacy in Northern Ireland attended the simulation event. Ethical approval was not required as the evaluation was classified as a teaching evaluation. Following completion of the simulation stations, students were invited to complete a short Likert-style Microsoft Forms questionnaire to explore their opinions of the simulation event. Quantitative data were analysed using descriptive statistics, and thematic analysis was used to evaluate the qualitative free-text responses.

Results: 147 of the 263 students responded giving a response rate of 56%. 85% (n=125) of students reported prescribing skills confidence and 72% (n=106) of students reported physical examination confidence. 93% (n=137) of students reported that completing the simulation stations made them feel like a pharmacist. Themes from the free text comments included: introduction to evidence-based decision making, fostering pre-prescribing skills, insight into the experiential learning journey, safe learning environment and contextualisation of learning.

Conclusion: Students embraced the opportunity to develop their clinical and consultation skills, with the majority of participants reporting confidence in physical examination, prescribing skills and self-reported professional identity as a pharmacist. This simulated experience has enabled 1st year undergraduate pharmacy students to apply their clinical skills within a simulated environment before experiential placement in the following years of the MPharm programme.

Student perspectives on racial and religious inclusivity in pharmacy education at Kingston University

Dipa Kamdar , Maryam Abotabekh

Kingston University, London, United Kingdom

Background: The underrepresentation of race and religion in the curriculum may negatively impact students, e.g., degree awarding gaps (Kiles and Chisholm-Burns, 2022). Studies report discrimination and microaggressions within healthcare programmes which can marginalise students. This may

persist, leading to differences in professional attainment and career progression (Ahmed et al., 2024). Broad et al. (2018) found that despite the prevalence of discrimination within medical education, reporting was uncommon and perceived as inadequate.

Aims: To explore students' perspectives on racial and religious inclusivity in pharmacy education at Kingston University.

Methods: Following ethical approval, an online survey comprising 27 mixed-style questions was distributed to all pharmacy students at Kingston University. Semi-structured interviews were conducted. Descriptive statistics and thematic analysis were used.

Results: Survey response rate was 44% (n=105/241) and 5 students participated in interviews. Majority (94%, n=99) were 18-24 years old, female (74%, n=78) and Muslim (57%, n=60). 14% (n=15) self-reported experiences of racial bias or discrimination and 16% (n=17) of religious bias or discrimination. 24% (n=25) self-reported experiences of microaggressions, mostly during placements (n=10) then within the department (n=9). 10% (n=10) felt this may have impacted their university experience. Only 4% (n=4) discussed or reported their experience. Students want raised awareness of reporting tools (40%, n=42) and student training on discrimination (33%, n=35). Thematic analysis indicated students found the curriculum and university diverse and representative.

Conclusion: Bias and discrimination are not extensive, however, microaggressions occur more frequently, primarily during placements. With increased placement provision, it is imperative placement providers have adequate training. Similar to previous studies, majority of students do not report experiences (Broad et al., 2018). Raising awareness of reporting tools is necessary for inclusive learning environments. Actions include highlighting reporting tools at annual inductions, one-to-ones for clinical tutors and students to discuss placements, and implementation of staff-student anti-racism training. Limitations include small sample size and perception bias.

Using social media to improve calculation competency

Northern Ireland Centre for Pharmacy Learning and Development, Belfast, United Kingdom

Northern Ireland Centre for Pharmacy Learning and Development, Belfast, United Kingdom

Background: Accurately undertaking calculations is fundamental to pharmacists' role in ensuring safe and

effective patient care (Spence et al., 2024). High-quality teaching combined with practise opportunities ensures pharmacists are well-equipped to perform calculations accurately.

Aim: To provide engaging and accessible calculation practice for pharmacists, trainee pharmacists and students through social media to enhance calculation skills, while also evaluating its effectiveness for delivering educational content.

Method: Questions were cloned from GPhC registration assessment examples. Facebook and Instagram were selected due to popularity with the target audience and compatibility with ManyChat, an automation tool enabling instant messaging. The series was promoted via NICPLD social media and directly to trainees. Over 12 days in December, a question was posted daily, and participants commented to receive an automatic direct message containing the answer and rationale through ManyChat. An evaluation survey gathered feedback, with no ethical approval required as it was a service evaluation.

Results: In total, 57 individuals participated (Facebook n=40, Instagram n=17). Of these, 14% completed all 12 questions, 5% attempted 8-11 questions, 26% tried 4-7 questions and 54% undertook 1-3 questions. The evaluation response rate was 22.8% and 85% rated the questions "just right", 92% found the answers and rationales very useful, 100% found the automatic direct messages effective and 85% rated the series "excellent". All respondents strongly agreed or agreed their calculation skills improved by participating, which was measured via self-reported confidence before and after participation. Participants valued the question difficulty range, immediate availability to answers and rationales, and the extra practise. Suggested improvements included more questions, delivering regularly and incorporating resource-focused and community-based questions.

Conclusion: This series successfully engaged pharmacists, trainees and students, improving confidence in calculation skills. Feedback highlighted the potential of social media as a supplementary educational platform and future series will aim to further assess its effectiveness.

Exploring the acceptability and feasibility of implementing junior pharmacist guidance and training for management of clinical interventions

Johanna Watts¹, Kiran Thind², Kate Oates¹, Charlotte Storer¹, Caroline Barrett¹, Reem Aamir¹, Penny Lewis²

¹Manchester University NHS Foundation Trust, Manchester, United Kingdom

²University of Manchester, Manchester, United Kingdom

Background: Clinical interventions are pharmacist actions aimed at identifying, preventing, or resolving medication-related problems. Effective interventions reduce patient harm (Dawoud, 2019). However, an absence of guidance and training for pharmacists regarding the management of clinical interventions has been reported locally as a barrier to patient safety.

Aims: To explore the acceptability and feasibility of co-developed guidance and training for clinical intervention management among junior pharmacists in a large teaching hospital trust.

Methods: Intervention: A co-design workshop with 6 junior pharmacists (JP- band 6 rotational pharmacists), 1 trainee pharmacist, and 1 education and training pharmacist was undertaken to develop guidance for managing clinical interventions, training and a feedback tool. Training sessions were held in Oct-Nov 2023 with integration of the feedback tool into the pharmacist rotational training programme.

Study evaluation: Semi-structured online interviews with 7 JPs and 5 supervisors were conducted to explore their experiences of the acceptability of the intervention. The Theoretical Framework of Acceptability (Sekhon et al. 2017) informed the data collection tool and data analysis. ethical approval was granted by the University of Manchester Research Ethics Committee.

Results: Participants believed this guidance and training would enhance the development of clinical intervention skills, boost confidence in managing challenging situations—especially when facing resistance from prescribers—and promote appropriate prioritisation and escalation of interventions. JP's valued the opportunity to gain explicit feedback on their clinical interventions. However, implementation barriers included access to the guidance and time, limiting JP ability to engage with feedback. The intervention aligned strongly with participant values, as clinical interventions were "one of the most important skills a pharmacist can have."

Conclusion: This study has generated essential and valuable guidance and training to support pharmacists' management

of clinical interventions and will inform modifications to the intervention. Future research should explore their effectiveness in improving clinical intervention management and reducing medicine-related harm.

AIPEC 2024: Empowering collaborative healthcare education across borders

Paul McCague¹, Matthew Maynes¹, Stephen Armstrong², Orla Mongan³, Emer McGowan⁴, Jean-Daly Lynn⁵, Muirne Spooner⁶, Aoife Fleming⁷

¹Queen's University Belfast, Belfast, United Kingdom

²Belfast Health and Social Care Trust, Belfast, United Kingdom

³University of Galway, Galway, Ireland

⁴Trinity College Dublin, Dublin, Ireland

⁵Ulster University, Derry, United Kingdom

⁶Royal College of Surgeons in Ireland, Dublin, Ireland

⁷University College Cork, Cork, Ireland

Introduction: The All-Ireland Interprofessional Healthcare Challenge (AIPEC) (Fleming et al. 2024) is a novel, intervarsity competition championing interprofessional learning (IPL) among students from a range of health disciplines. The initiative involves teams from eight universities across the island of Ireland and challenges students to address complex care scenarios, developing their collaborative and problem-solving skills. In March 2024, AIPEC was hosted for the first time at a UK institution, Queen's University Belfast. Held on International Women's Day, the event was themed "Empowering Women's Choices in Health". Students created person-centred care plans, judged by experts, including a patient, on teamwork, critical thinking, and communication.

Aim: This study aimed to evaluate the experiences and perspectives of students who participated in AIPEC 2024.

Methods: Ethical approval was obtained for a 23-item, paper-based questionnaire incorporating the Assessment of the Interprofessional Team Collaboration Scale (AITCS-II) (Orchard et al., 2021). The questionnaire was distributed to student participants (n=46) following the event. Descriptive statistics and content analysis of free-text responses were used to analyse the data.

Results: A total of 46 students completed the questionnaire (response rate: 100%). All participants agreed or strongly agreed that AIPEC enhanced their understanding of interdisciplinary healthcare team roles and would recommend the event to others. Positive feedback was received across all four AITCS-II subscales. Free-text responses highlighted enhanced teamwork skills, including

delegation and conflict resolution, as well as a reinforced focus on patient-centred care.

Conclusion: AIPEC 2024 was an innovative and novel initiative, significantly broadening the reach and impact of IPL among healthcare students from both jurisdictions on the island of Ireland. By fostering skills in teamwork, communication, and patient-centred care, it highlights the value of such initiatives in advancing IPL. The event's success underscores its potential to shape future healthcare professionals, preparing them for effective, collaborative care delivery in multidisciplinary teams.

A resource-efficient simulation approach to case-based learning

Gillian S Phua¹ , Charlotte M Waller^{1,2}

¹Swansea University, Swansea, United Kingdom

²Swansea Bay University Health Board, Swansea, United Kingdom

Background: Case-based learning is employed in healthcare-related education, wherein clinical cases are taught through various delivery methods (Thistlethwaite et al., 2012). Compared to traditional methods, simulation learning is linked to better learning in terms of critical thinking and clinical performance; with digital technology not highly necessary for effective learning (Persico and Lator, 2019, Chernikova et al., 2020) Herein, a low-tech simulation approach was designed.

Aim: Evaluate a novel simulation-based learning method delivered for the first time.

Method: Fourth-year pharmacy students attended two workshops, each with a different patient case, to gather information from unmanned stations. Station materials included medical imaging/laboratory documents, pre-recorded AI-generated videos of carers/patients, point-of-care tests with synthetic body fluids, hospital charts and prop medication. Students submitted a stylised pharmaceutical care plan report, with marked feedback provided later. A simple questionnaire gathered student perceptions about the workshops using a 4-point scale (1=extremely disagree; 4=extremely agree) and spaces for open comments.

Results: Response rate was 59% (n=24/41). Most (>95%) agreed "the order of the sessions was logical and organised," "station-based method of gathering information was conducive to learning," and "sessions challenged them to think critically to identify and solve patient-related issues." Students wrote they enjoyed the variety and flexibility of moving between stations (n=9), the interactivity with peers and station materials (n=8), and presented the practical element of future practice (n=6). Students averaged 65%

(highest score=85%) on a care plan report submission later in the semester; effective learning was demonstrated in this first cohort and results will be compared in future years. Unmanned stations and staggered entry required only a single staff member to set up and facilitate. This is scalable for a larger cohort, with extra copies of materials, without the need for additional staff or larger rooms.

Conclusion: These simulation-based sessions are straightforward to deliver, resource-efficient, and provide a suitable case-based learning approach to prepare students for future clinical work.

Evaluation of participants' experience on the independent prescribing pilot for trainee pharmacists in the foundation training Year

Patricia Achi¹, Tim Denby^{1,2}, Kristina Medlinskiene^{1,3}, Sallianne Kavanagh^{4,5}, Gemma Quinn¹

¹University of Bradford, Bradford, United Kingdom

²Affinity Care, Shipley, United Kingdom

³Hull University Teaching Hospitals NHS Foundation Trust, Hull, United Kingdom

⁴University of Huddersfield, Huddersfield, United Kingdom

⁵Sheffield Teaching Hospitals NHS Foundation Trust, Sheffield, United Kingdom

Background: In preparation for embedding of independent prescribing (IP) training in the foundation training year of trainee pharmacists (TPs), a pilot programme was commissioned by the National Health Service England (NHSE) workforce training and education (WTE). This was delivered by the universities of Bradford and Huddersfield and was aimed at developing and evaluating training models and an assessment strategy for embedding IP skills into the FT programme for TPs.

Aim: The present work is aimed at evaluating participants' experiences on the pilot.

Methods: The pilot team designed bespoke questionnaires using MS Forms for TPs and designated prescribing practitioners to assess their confidence in demonstrating skills within the Royal Pharmaceutical Services competency framework for all prescribers (RPS CFAP) (RPS, 2021). Semi-structured interviews and focus groups were conducted, and data analysed using thematic analysis. Ethical approval was granted by the University of Bradford's Biomedical, Natural, Physical and Health Sciences Research Ethics Panel.

Results: The survey response rate at the start, midpoint and end of the pilot was 78%, 100%, and 63%, respectively. TPs'

perceived confidence in their ability demonstrate competencies in both domains of the RPS CFAP increased by the end of the pilot.

In the consultation domain, increase in confidence for hospital-based trainees was greatest for three of the six competencies, while for cross sector trainees, the greatest change was observed in one competency.

In the governance domain, the greatest increase in confidence was observed for one competency in hospital-based and cross-sector trainees.

Qualitative data revealed themes relating to scepticism and discomfort at the start of the pilot, and relief and clarity at the end of the pilot.

Conclusion: The embedding of IP training in the foundation year is manageable and will lead to production of pharmacists with the required level of competence in prescribing.

Exploring the role of the Educational Supervisor in Pharmacist Professional Development within General Practice (NI)

Anna Fay^{1,2}, Deborah Lowry³

¹Northern Ireland Centre for Pharmacy Learning and Development (NICPLD), Belfast, United Kingdom

²Lisburn Federation of Family Practices, Lisburn, United Kingdom

³University of Ulster, Coleraine, United Kingdom

Background: Ongoing pharmacy reforms (General Pharmaceutical Council 2021) provide an opportunity to develop new approaches to advancing pharmacy practice (Reuben et al, 2020), including the educational supervisor (ES) role. Additionally, there has been a significant increase in pharmacists working in General Practice (GP) (Hasan Ibrahim et al. 2022) in Northern Ireland (NI). Workforce development programmes rely on ES support. There is a need to evaluate the role of the GP ES in NI.

Aim: To explore the GP ES role, and whether GP ESs in NI are prepared to undertake it.

Method: A literature review was undertaken using a systematic search strategy and findings were incorporated into questionnaire design. Both quantitative and qualitative approaches were employed, incorporating open (Likert scale) and closed questions, to gather GP ESs personal experiences and their expectation of future role development. The questionnaire was emailed to all 29 ESs employed in the 17 GP federations in NI.

Quantitative data was analysed using a one-way ANOVA (Analysis of Variance) test, and Tukey's Honestly-Significant

Difference post-hoc test determined the level of statistical significance.

Qualitative data was coded in an iterative manner to identify common themes.

Ethical approval was granted by the Biomedical Science Ethics Filter Committee at Ulster University.

Results: The questionnaire achieved an 86% response rate (n=25). The study was limited by the small number of participants.

Key findings identified a workforce equipped for (92%) and enthusiastic about (92%) their ES role, and motivated to support colleagues (84%).

Challenges included a mixed understanding of what the ES role entails, and limited capacity to deliver the ES role.

Conclusion: GP ESs in NI are equipped for and enthusiastic about their ES role but have a limited capacity to deliver it. This needs to be addressed to realise the full potential of the GP pharmacist workforce.

Learnings from the collaborative RPS/CPPE supported e-portfolio programme for advanced pharmacist practice in England

Lisa Drinkwater, Emma Wright, Matthew Shaw

Centre for Pharmacy Postgraduate Education (CPPE), Division of Pharmacy and Optometry, The University of Manchester, Manchester M13 9PT, United Kingdom

Background: The Royal Pharmaceutical Society (RPS) contracted the Centre for Pharmacy Postgraduate Education (CPPE) to develop a structured education supervision programme for pharmacists to create a portfolio of evidence against the RPS Core Advanced curriculum outcomes (Royal Pharmaceutical Society, 2022). Credentialling pharmacists would be designated Advanced Pharmacists. Facilitated small group learning sessions provided opportunities for active collaboration using purposeful activities that encouraged engagement, critical thinking and peer support (Burgess et al., 2020). A key challenge was ensuring all five domains were covered in sufficient depth while balancing time, learner needs, and diverse practical applications to practice.

Aim: To explore how the education supervision delivery model enabled success, identifying barriers and areas for improvement.

Methods: Quantitative data was gathered to explore the pass rate for each domain. Specific interventions were implemented to provide additional education support for the weakest research domain. Interventions included enhancing

facilitators' understanding of the research domain outcomes, signposting pharmacists to resources and domain focussed webinars.



The target audience were pharmacists seeking to credential as advanced practitioners as well as education supervisors involved in facilitating the delivery model.

Ethical approval was not required as this is service evaluation.

Results: The pass rate across the three initial cohort submissions was 58% (n=25). 100% of unsuccessful pharmacists failed the research domain. Through specific interventions from the Education Supervisor team, the number of pharmacists who passed domain 5 (Research) increased to 69% (n=18) in the October 2024 cohort.

Conclusion: By analysing the data, the research domain was identified the main challenge to successful credentialing. The pass rate was improved by enhancing the focus of small group learning, improving access to useful resources and Education Supervisor team clarifying the requirements for this domain. The analysis also considered what worked well with learning, informing future supported programmes.

Evaluation of an innovative multi-level prescribing workshop for pharmacy undergraduate students

Sally Wright , Rebecca Fern, Rebecca L Hetherington, Ryan Jones, Alice P McCloskey 

John Moores University, Liverpool, United Kingdom

Background: Evidence-based methods are required to support MPharm students to develop the skills and confidence expected by patients and the NHS. (General Pharmaceutical Council, 2021) Peer-to-peer student support is considered a beneficial strategy to improve student success. (Asal et al, 2024)

To promote peer-support amongst MPharm students, a novel multi-level workshop was introduced in December 2024. Small, mixed-level groups of students worked together to supply a medicine to a patient, following each step in the process, from patient consultation to counselling. Supportive group discussion was encouraged throughout and checklists were provided to enable peer-review and feedback on consultations.

Aims: This study aimed to evaluate student views of an innovative multi-level simulated workshop based around prescribing and supply of medication.

Method: Evaluation of the workshop was via quantitative questionnaire to explore student views of the workshop. Data

were analysed using descriptive statistics and free-text answers for context. REC approval granted.

Results: 85.2% (534/627) of students attended their workshop and 58.8% (314/534) completed the questionnaire. Respondents were evenly distributed across all levels.



Feedback was positive. 97.8%(307/314) agreed the session was applicable to their future practice and 94.3%(296/314) of students would like multi-level workshops to continue.

Students highlighted various skills supported by the workshop, communication/consultation skills were the most common. One Y3 student stated "It was interesting developing my consultation skills, especially when watching the [Y4 student] to see how she approached things differently so I can implement this"

Several students reported feeling uncomfortable working with students from different levels. One Y1 student stated "It felt a bit awkward working with my group as I don't know them but with more [sessions] I think this would change".

Conclusion: Multi-level workshops have proven a successful tool in this instance to support peer-learning and will be integrated into the programme to support students.

Simulation as integration

Sarah Frank, Saq Rahman, Alan Smith , Sallianne Kavanagh 

University of Huddersfield, Huddersfield, United Kingdom

Background: To facilitate prescribing status upon registration, the GPhC published 'Standards for the initial education and training of pharmacists' (GPhC, 2021), requiring students reach several standards at Millers triangle 'Does level'.

Aim: To explore student perceptions of simulated learning for integrating scientific theory, information searching skills and administering injectable medicines at the 'does' level.

Methods: An injectable medicines simulated learning event was developed, utilising prior learning and supported with active teaching on injection techniques. Case study format was used to integrate the existing knowledge with clinical reasoning and counselling patients on the use of the medicine or administering the injection.

65 students were invited to attend, with 51 participating in the simulated learnings event.

A questionnaire was developed to explore students perception of the learning experience themed around confidence and competence in their application of knowledge to injection techniques and patient orientated consultations.

Data was collected via an online semi-structured questionnaire within the virtual learning environment. A link was provided at the end of the session. All participants were invited to participate.

(Ethics approval not required as undertaken as part of service improvement.)

Results: 46/51 (90%) feedback responses were completed. All respondents stated the day met or mostly met their expectations, remarking on the interactive nature of the day and the use of case studies to represent the patient experience as a positive learning experience. 100% agreed that the event had improved their confidence with giving injections, 93% agreed it developed their understanding of science into practice, 89% agree it helped them use appropriate resources, 98% agreed it prepared them for real world scenarios and their understanding of patient consent.

Conclusion: Simulated learning events can successfully bridge the scientific theory, clinical knowledge and practical skills in a safe learning environment that enhances the student's ability at the does level.

Concept mapping as a strategy to promote meaningful learning in MPharm students

Clare Murray, Fiona Furlong, Jack Tierney

Queen's University, Belfast, United Kingdom

Background: Ausubel's theory of Meaningful Learning and constructivist epistemology were at the forefront of Novak's work when he developed concept maps as a resource to promote learning (Novak and Cañas, 2006; Cottingham, 2023). Pharmacy educators recognise that students must be meaningful learners, linking old knowledge to new and creating links between science and practice (General Pharmaceutical Council, 2021). Given the novelty of concept mapping as a tool for pharmacists' learning, a workshop was integrated into a pharmacology and therapeutics module studied at Queen's University Belfast (QUB) MPharm.

Aims: Determine student perceptions on using concept mapping as a learning tool to promote meaningful learning in pharmacy students.

Methods: Following ethical approval, a questionnaire was disseminated to QUB level 2 MPharm students (n=143) after their attendance at a concept mapping workshop. The results from the questionnaire were analysed both qualitatively and quantitatively.


Results: The response rate was 97.2% (139/143). Students held positive views on using concept maps to help increase engagement with the focus topic [85.61% (119/139)]. Students commented that it helped to consolidate learning [88.49% (123/139)], linking key concepts and aided in enhancing their understanding of the topic.

“Helping to take large info and make it easy to understand” P99

Students were apprehensive, with only 43.17% (60/139) positive about incorporating it into their revision techniques, many cited a fear of missing important details, preferring to learn directly from slides.

Conclusion: Essential insights were garnered on the role of concept mapping as an educational strategy to promote meaningful learning among pharmacy students. This study highlighted the importance of pharmacy educators' signposting the role of concept maps in developing clinical reasoning skills, linking science to practice. Future research should focus on the impact of concept mapping on students' results and the extent to which they embed the approach into their practice.

Evaluation of the digital integration of SystmOne in simulation-based teaching for final year MPharm students at Kingston University

Leanne T May , Afrah Neimi, Zahra Cusman, Sanjida Hossain, Sahera Malik

Kingston University, Kingston Upon Thames, United Kingdom

Background: Electronic Health Records (EHRs) enable efficient patient data management and collaboration among healthcare professionals (Quinn et al., 2019). SystmOne, EHR software, is used primary and secondary care in the UK (Skeenaghan, 2020). However, pharmacy students often graduate with limited exposure to EHRs, which can hinder confidence during clinical placements (Cook et al., 2021). Incorporating SystmOne into pharmacy education simulation workshops addresses this gap.

Aims: This study aimed to implement SystmOne in a simulation workshop at Kingston University and included evaluating the advantages and challenges, investigating ways to improve use, and exploring potential for integration into the pharmacy curriculum of SystmOne.

Methods: Semi-structured interviews consisting of nine questions covering three themes: experience, suggestions for improvement, and integration and perceived support for practice, took place for 36 participants on MS Teams with four student researchers, following a 1.5-hour workshop attended in-person by 97 final-year pharmacy students. Students used

SystmOne on computers with introduction, two case-studies, and feedback, facilitated by an academic and four researchers. Ethical approval was obtained from Kingston University. Data were transcribed, coded manually and thematic analysed (Braun and Clarke, 2006).

Results: Most students lacked prior SystmOne experience, found its prescribing features beneficial, but highlighted challenges in navigation, particularly shortcuts and pathology data. Suggestions for improvement and integration included pre-work, illustrated navigation leaflets, and extended practical sessions. Positive outcomes included themes regarding increased perceived confidence in documenting patient data, prescribing, and understanding EHRs in clinical practice. Complications in initial IT implementation of the system were a limitation.

Conclusion: SystmOne in simulation workshops can bridge the gap between pharmacy education and clinical practice by familiarising students with EHR systems. Future simulations should provide pre-work materials, additional sessions to improve practice, and focus on clinical application to further improve engagement and competency. IT set up support is essential to success.

Staff understanding of clinical reasoning in pharmacy education

Suzanne Cutler¹ , Maria Allinson² 

¹University of Liverpool, Liverpool, United Kingdom

²University of Sheffield, Sheffield, United Kingdom

Background: The revised Education and Training Standards for pharmacy education integrate learning outcomes that include clinical reasoning (CR) (General Pharmaceutical Council, 2021). CR comprises several elements (Cooper and Frain, 2017) including problem identification and clinical decision-making. Pharmacists must have a foundational understanding of these elements, as well as clinical knowledge, to make informed decisions. As such, the teaching, learning and assessment of CR is key to prepare pharmacy students for their future practice.

Aim: The aim of the research was to explore staff views on their understanding, teaching and assessment of CR within the Masters of Pharmacy programme and future undergraduate education provision.

Methods: Following ethical approval, staff across two higher education institutions were invited to participate in the research via email. A literature review was undertaken to explore the elements of clinical reasoning which subsequently informed the development of the interview

schedule. All interviews were held, and recorded, on Microsoft Teams, then transcribed and analysed using NVivo.

Results: Semi-structured interviews were undertaken with 11 academic staff in two universities. Thematic analysis identified three key themes: understanding of CR, the importance of CR and the teaching and assessment of CR. Staff focussed on the clinical decision-making element of CR and recognised the importance of clinical decision-making in patient care and in the education of pharmacy students. Staff identified a range of activities where they felt clinical reasoning was taught and assessed. There was a consensus that CR needed to be considered further in undergraduate education through both classroom-based and experiential learning.

Conclusion: The teaching and assessment of CR needs to be further developed within pharmacy undergraduate education to ensure that future pharmacists are prepared for their future practice. Furthermore, staff need to have a broader knowledge and understanding of CR. A limitation of this study is the small sample size.

A systematic review of factors impacting student absenteeism from face-to-face university teaching on healthcare programmes

Damilola Lawal, Claire Hough

University of Hertfordshire, Hatfield, United Kingdom

Background: The absence of students from classroom teaching is not new (Paisey & Paisey, 2004). However, the learning environment has changed and students are also changing, with increasing numbers having commitments outside of their studies (Cleary-Holdforth, 2007). In 2022, The Times Higher Education undertook a survey of academics and found that 29% of academics put student attendance between 41% and 60%, whilst 26% suggested attendance was between 21% and 39%.

Aim: The aim of this study was to explore the factors impacting student absence from face-to-face teaching on undergraduate healthcare university programmes.





Method: A systematic review was undertaken. The inclusion criteria were: healthcare students; higher education; level of attendance and/or proposals for improving attendance. Articles published in English, globally, in the last 10 years were included. The electronic databases searched were EMBASE, SCOPUS, MEDLINE, PubMed, Google Scholar and CINAHL using the key words: healthcare students; absenteeism; absence; non-attendance; lectures; teaching; university students. The data from the studies were extracted via a data collection form and the CASP checklist were used

to evaluate and assess the quality of the literature. Thematic analysis was then used to analysis the data.

Results: The literature search took place in April 2024. In total, 98 studies were identified and after screening 6 studies were eligible for review: The studies focussed on medical, dental and pharmacy students in the USA, UK and Saudi Arabia. The themes were: travel to university and lecture timing; availability of online/recorded material; upcoming assignments/examinations; perception of lecturer and topic taught; stress/tiredness/family commitments.

Conclusion: This review highlighted that factors impacting student absenteeism are wide ranging but with little literature focussing on healthcare students, where attendance requirements are high. Student perception of the impact of non-attendance at teaching sessions is key to understanding how to facilitate attendance at teaching sessions.

MPharm students' opinions and intentions to learn about their role in sustainability

Briegen Girvin¹ , Una McConnellogue¹, Bryony Dean Franklin^{2,3} , Sudaxshina Murdan² , Miray Arslan⁴ 

¹Queen's University Belfast, Belfast, United Kingdom

²University College London, London, United Kingdom

³Centre for Medication Safety and Service Quality, London, United Kingdom

⁴Van Yüzüncü Yıl University, Van, Turkey

Background: Pharmacists have an essential role in addressing environmental sustainability, as medicines account for 25% of NHS carbon emissions (NHS England, 2020). Therefore, it is necessary to create environmental sustainability awareness among pharmacy students.

Aims: To investigate pharmacy students' opinions and intentions to learn about their role in sustainability (LARS) using the Theory of Planned Behaviour and whether gender, status (home/overseas) and year group influence student responses.

Method: The study was conducted at Queen's University Belfast (QUB). Following ethical approval, an anonymous online questionnaire including demographics and a measurement tool developed at University College London (Arslan et al., 2024) was emailed to all QUB MPharm students in January 2024. A 5-point Likert scale was used. Mann-Whitney U and Kruskal Wallis tests were used to determine demographics' influences.

Results: 147 of 526 students responded (response rate 28%). 67% (n=352) of pharmacy students felt that LARS was positive for the environment; 63% (n=331) were concerned about the world's environment. 18% (n=94) and 36% (n=189) of students were worried about carbon emissions caused by inhaler usage and pharmaceutical products respectively. 57% (n=300) of students were willing to LARS. "Willing to LARS" among home students was significantly higher than among overseas students ($U=930$, $p=0.027$). 32% (n=168) wanted to LARS because people who are important to them think it is important for the environment; this was much higher for females than males ($p=0.023$). There was a significant difference in "feel LARS is essential" among the year groups, $\chi^2=7.679$, $p=0.053$, with mean rank scores of 72.33 (Year 1), 56.44 (Year 2), 80.95 (Year 3), and 78.38 (Year 4).

Conclusion: Most pharmacy students have positive attitudes toward LARS and are concerned about the environment. However, environmental sustainability education may be needed to motivate students.

Incorporating an environmental sustainability and quality improvement ("SusQI") initiative into the trainee pharmacist programme at Nottingham University Hospitals and Sherwood Forest Hospitals NHS Foundation Trusts

Riya Savjani¹, Laura Broad¹, Sandra Harris²

¹Nottingham University Hospitals NHS Foundation Trust, Nottingham, United Kingdom

²Sherwood Forest Hospitals NHS Foundation Trust, Mansfield, United Kingdom

Background: The climate emergency is a health emergency (NHS England, 2022). Pharmacists have a professional responsibility to take a leading role in reducing the environmental impact of medicines (Royal Pharmaceutical Society, 2025).

An initiative was designed for trainee pharmacists to incorporate teaching on climate change, medicines sustainability in the NHS and discussion of small-scale sustainability projects. Dedicated time to plan, undertake and present the project was scheduled.

Aims: To measure the impact of a sustainability quality improvement ("SusQI") initiative on the future intentions of trainee pharmacists.

Methods: Trainees were physically handed questionnaires to complete. They answered four questions pre- and post-initiative. A five-point likert scale was used to measure responses. The same questions were asked pre- and post-initiative. Results were analysed using Excel.

Ethical approval was not required.

Results: Nineteen secondary care trainee pharmacists took part in the initiative. There was an 100% response rate for both pre- and post-initiative questionnaires.

The number of trainees that said they would be "somewhat likely" or "very likely" to consider sustainability in their future practice increased from 14 (pre-initiative) to 19 (post-initiative) participants.

The number of trainees who rated the importance of sustainability of medicines as "very important" increased from eight to 17. Knowledge of SusQI and sustainable healthcare as "somewhat good" increased from two to 14. Knowledge about the environmental impact of medicines as "somewhat good" or better, increased from four to 17.

Conclusion: Study limitations include small sample size and potential response bias as trainees were handed questionnaires face to face.

The results showed this initiative increased trainee pharmacists' knowledge and consideration in incorporating environmental sustainability in their practice. This forms the basis of building an NHS workforce for the future to tackle global warming and reduce NHS carbon emissions.

Evaluating the role of simulations in 'Advanced Pharmacy Practice' for preparing pharmacy students for prescribing

Shurti P Aina

University of Hertfordshire, Hatfield, United Kingdom

Background: Pharmacy education in the United Kingdom is evolving with independent prescribing integrated into the Master of Pharmacy (MPharm) degree. By 2026, all new pharmacists will be prescribers. Simulations are vital in preparing students through real-world tasks like physical examinations, case-solving and evidence-based decisions.

Aim: To evaluate the role of simulations in preparing pharmacy students for prescribing in the new fourth-year MPharm module, 'Advanced Pharmacy Practice (APP)', at the University of Hertfordshire.

Method: A survey was conducted in week 14 of semester A with final-year pharmacy students. It assessed students' confidence in prescribing, the usefulness of simulations, and areas for improvement. Students completed the survey during or after the simulation via an online link, available for seven days. Ethical approval was not required as the study was for curriculum development purposes. Quantitative data from seven Likert-scale questions were analysed using

Microsoft Excel, while thematic analysis was applied to open-ended questions.

Results: 52% of students (n = 61/117) participated in the survey. Of these, 32.8% (n = 20) found the APP simulations useful, and 29.5% (n = 18) found them very useful in improving clinical knowledge and skills for prescribing. Students agreed they felt confident in clinical examination skills (48.1%, n=26), patient consultations (39.3%, n=24), discussing prescribing decisions (34.4%, n=21), and using clinical guidelines (40%, n=24) after the simulations. Seven themes emerged: hospital simulations most useful, community simulations least useful, active learning, applying knowledge, improving feedback, lack of time and publishing answers.

Conclusion: This study, conducted after five of fourteen simulation sessions, highlights simulations' value in preparing pharmacy students for prescribing. However, careful planning is essential to maximise learning and address barriers like feedback and time constraints. Implementing feedback-driven changes and conducting a follow-up study with focus groups at year's end will further clarify simulations' role in students' prescribing readiness

Evaluation of confidence-based testing use during formative assessments

Patricia Achi, Ibrahim Valli, Kristina Medlinskiene

University of Bradford, Bradford, United Kingdom

Background: Confidence-Based Testing (CBT) or point spreading assesses students on the correctness of their knowledge and how confident they feel about their answers. It is thought to encourage reflective learning and provide in depth understanding of learners' understanding of the tested content (Bryan, C et al. 2006). CBT was introduced to a one year postgraduate trainee pharmacists programme that use Team-Based Learning.



Aim: To understand learners' preparedness for the session and evaluate their confidence levels in relation to different types of questions.

Methods: Twelve online study days were delivered to 240 postgraduate learners over the course of six months. Each study day comprised of a test with 10 to 15 formative multi-choice questions (4 choices) at the start of the day. Questions were categorised as per Bloom Taxonomy (recall, application, understanding, analysis). A 5-point Likert Scale was used to score confidence based on the point spreading (e.g., 5 points-very confident, no point spreading). Descriptive statistics and student t-test were used for data analysis. Ethics approval was not sought as this was an ethically uncontentious project.

Results: In total, there were 44 questions: 21 recall, 18 application, 3, understanding, 2 analysis questions. Learners were very confident in 79% of answers submitted. Differences were observed in the proportion of students that were very confident in the different categories of questions, which were not statistically significant, except in recall versus understanding (P = 0.025) and recall vs analysis (P = 0.028) questions. There was no significant difference in confidence levels between male and female learners, except in recall type questions.

Conclusions: Learners were well prepared for online sessions as the use of point spreading was low. The CBT could be used to inform tailored feedback after the test.

Evaluation of the Medicines Related - Consultation Assessment Tool (MR-CAT) e-learning to assess learner satisfaction, knowledge acquisition, and intended practice changes in pharmacy consultations

Helen G Middleton , Clare Smith, Matthew D Shaw 

Centre for Pharmacy Postgraduate Education, Manchester, United Kingdom

Background: The Medicines Related - Consultation Assessment Tool (MR-CAT) is validated for assessing person-centred pharmacy professionals' consultations (Middleton et al, 2023). The MR-CAT includes descriptors at three practice levels (below expectations, competent, excellent) to help learners and assessors differentiate skills and conceptualise good consultation behaviours. This supports the MR-CAT's role as a formative assessment tool, promoting feedback and reflective practice.

An open access e-learning programme was developed to support pharmacy professionals, MPharm students and assessors use the MR-CAT effectively for self-assessment and direct observation. Video critique using the MR-CAT aims to build assessor confidence in delivering consistent assessments and feedback. The e-learning is available at <https://www.consultationsskillsforpharmacy.com>

Aims: To evaluate the e-learning program using Kirkpatrick's model at level 1 and level 2 (Kirkpatrick, 1959).

Method: An anonymised survey was used to collect data through Likert-scale and qualitative open-ended questions focusing on Level 1 (learner satisfaction) and level 2 (knowledge acquisition and intended changes to practice) of Kirkpatrick's model. Level 3 and 4 were not measured because the anonymous survey prevented follow-up and assessment of individual behaviour or results.

Results: 124 responses were received; 97% (n =120) stated the learning increased their confidence in consultations, 93% (n =116) stated the learning was relevant to their practice. Feedback included: "I intend to improve... based on the criteria outlined in the MR-CAT form, e.g., by ensuring that it is patient-centred and that the patient feels involved in the decision-making process, as true improvement in health correlates with a patient's adherence to the medication regime".

Conclusion: Evaluation of demonstrated high levels of learner satisfaction and increased confidence in consultations. Respondents highlighted the MR-CATs relevance to practice and described intended changes in practice based on their learning. These findings support the MR-CAT e-learning is an effective tool for developing person-centred consultation practices among pharmacy professionals.

Oriel Day: An evaluation of a one-stop shop to prepare third year pharmacy students for the foundation training year application process.

Gwenno Williams¹, Nia Williams²

¹Swansea University, Swansea, United Kingdom

²Hywel Dda UHB, Llanelli, United Kingdom

Background: Third-year pharmacy undergraduates who wish to undertake their foundation training year in the United Kingdom must apply via the Oriel online platform (NHS England, 2023). The multi-step application process is lengthy; therefore, an Oriel Day was proposed to prepare students for the process. Oriel Day consisted of talks from externals on the process itself, the examinations and styles of training years, and included a 'meet your employers' session.

Aim: This evaluation aimed to assess student preparedness for the various stages of the Oriel application process pre- and post- Oriel Day.




Methods: All third-year pharmacy undergraduates at a Welsh university were invited to partake in this mixed-method exploratory evaluation, with pre- and post-event questionnaires used as data collection tools. Students rated their confidence surrounding aspects of the Oriel process with Likert scales, with 1 denoting 'no confidence' and 5 denoting 'very confident'. Free-text boxes captured qualitative data. Data was analysed using Microsoft Excel and qualitative data underwent thematic analysis. Ethical approval was obtained.

Results: Forty-four students were eligible for inclusion; of these, 52% (n=23) completed the pre-event questionnaire

and 43% (n=19) completed the post-event questionnaire. Thematic analysis identified the overall application process, academic components and geographical outcome as key themes. Analysis of post-event data suggested that these concerns were addressed, with new themes of process clarity, test preparedness and engagement with local employers emerging. Quantitative data supported this, with student preparedness for the Oriel application process increasing from an average of 1.78 pre-event to 4.21 afterwards (p=0.023). No other data points were of statistical significance.

Conclusion: This evaluation highlighted the benefit of Oriel Day in increasing student confidence in the Oriel application process and its associated examinations. A limitation of the evaluation was its small sample size, therefore further research is needed to evaluate the event's wider impact.

What motivates pharmacy students to choose to study pharmacy?

Lezley-Anne Hanna , Lara Bell, Maurice Hall , Dan Corbett 

Queen's University Belfast, Belfast, United Kingdom

Background: It is important that universities and pharmacy leaders understand why pharmacy students choose pharmacy. While similar work has been conducted nine years ago (Hanna et al., 2016), pharmacy has evolved significantly with the publication of standards that lead to pharmacists having independent prescribing rights at the point of professional registration (General Pharmaceutical Council, 2021).

Aims: to ascertain Queen's University Belfast Year 1 MPharm students' views on their chosen career and to determine whether gender affect responses.

Methods: Following ethical approval and an email invitation to participate, data were collected from consenting students via a pre-piloted paper-based questionnaire (November 2024). Data were coded, and analysis mainly took the form of descriptive statistics. To ascertain whether there were significant differences (p<0.05) by gender, the Mann-Whitney U Test was employed.

Results: A response rate of 73.29% (107/146) was obtained. There were 86 females, 20 males and 1 respondent did provide their gender. The main factors for choosing pharmacy were 'Enjoyed studying science during secondary education' (mean score of 4.68, maximum score was 5), 'a desire to improve people's health and wellbeing' (4.66). Becoming a pharmacist independent prescriber upon registration obtained a lower score (4.05). Female respondents were

more likely to deem working in the healthcare sector important than males ($p < 0.001$). Most respondents (97.20%, 104/107) strongly agreed or agreed they were looking forward to having a career in pharmacy. Working in hospital practice was the top ranked short-term career aspiration closely followed by community employee.

Conclusion: This work was conducted at one university but the findings should have relevance for other UK Schools of Pharmacy, including that science and improving health are important factors when choosing this career. Schools should ensure they provide accurate information to pharmacy applicants and pharmacy professional organisations should ensure that other sectors of practice are attractive career options.

Unpacking MPharm students' thoughts: Do they understand thinking integratively?

Marianne Rial¹, Stewart B Kirton², Suzanne Fergus¹

¹University of Hertfordshire, Hatfield, United Kingdom

²London South Bank University, London, United Kingdom

Background: This study focussed on integration within the MPharm programme. This pivotal element in the curriculum (Husband et al., 2014) aims to support students in developing application of skills. It requires them to integrate their knowledge from science and practice disciplines when managing clinical problems in patients.

Aims: This study explored students' understanding of studying integratively on the MPharm programme.

Methods: Ethical approval was sought and granted from the University ethics committee. MPharm students in year groups 1 to 3 were invited to participate in this research via module announcements on the University VLE. Three focus groups were conducted in person and the results transcribed verbatim. Anonymity was maintained for participants and transcripts were analysed using thematic analysis (Braun and Clarke, 2021).

Results: A total of fifteen MPharm students participated in the focus groups. Four themes were identified following analysis of the transcripts. These were: (i) strategic learning approaches, (ii) the importance of relevance to practice, (iii) benefits of work experience and (iv) creation of links within teaching and learning.

Conclusion: The small sample size within one School of pharmacy is an acknowledged limitation of this study. The findings do however suggest that independent skills of thinking and studying integratively are not fully embedded in

students who participated in the research. Some still need to develop critical thinking skills and take a more active approach to integrating their learning across disciplines. The pharmacy programme can be time intensive and challenging so some students may take a strategic approach to learning when under time pressure. Assessments need to be designed in a more truly integrated fashion to allow them to develop and demonstrate their integrative higher order thinking (Mawdsley & Willis, 2019). Students would benefit from a more directly scaffolded approach to integration with the links being highlighted throughout the programme.

Evaluating the impact of training on community pharmacists' self-perceived confidence in providing care for patients under the pharmacy independent prescribing service in Wales

Sara Visram¹, Karen Brambles², Debra Roberts², Helen Chang¹

¹Royal Pharmaceutical Society, United Kingdom

²Health Education and Improvement Wales, North Wales, United Kingdom

Background: Pharmacists are increasingly assuming prescribing roles and providing more complex pharmaceutical care, requiring more training. In Wales, the Pharmacy Independent Prescribing Service (PIPS) enables pharmacists in community pharmacy to manage and prescribe for certain conditions, (Welsh Government, 2024). Health Education and Improvement Wales, in collaboration with the Royal Pharmaceutical Society, provided training for community pharmacists (CPs) delivering PIPS. Between May to November 2024, two-hour sessions covering six clinical topics (dermatology, ear, respiratory, urinary, common childhood conditions and contraception) were delivered in-person and online. Subject matter experts developed the content and led the sessions. In total 1035 pharmacists attended the 32 sessions.

Aims: To assess the impact of the learning programme on CPs' self-perceived confidence in managing and prescribing for the clinical conditions covered by PIPS.

Method: A questionnaire with Likert scale statements and open-ended questions was sent to all attendees electronically within a day of attending training. Data was gathered anonymously. Ethical approval was not required for this study, as respondents consented to data being used for research and publication. Open-ended questions thematically analysed, and Likert scale rating statements, analysed descriptively using SPSS Statistics.

Results: With a 54.9% (n=1035) response rate, 85.4% of respondents in total across all sessions, reported they felt

confident to manage condition(s) post-training, including diagnosis, advice, treating and referrals. Additionally, 53.8% reported a significant knowledge increase and 97.2% expressed interest in more sessions covering other clinical topics. Attendees found the sessions were useful in increasing their confidence to manage patients presenting with clinical conditions, enabling them to expand their scope of practice.

Conclusion: Consistent with previous studies (Birt et al., 2022, Kamarudin et al., 2013), training effectively enhanced pharmacists' self-reported knowledge and confidence, and they felt better prepared to provide care for patients presenting with dermatology, ear, respiratory, and urinary tract conditions.

Exploring leadership perceptions, preparedness and development in pharmacy education: A multi-regional cross-sectional study

Naomi M Muogbara¹, Kevin B Laurence², Paul J Gallagher³, Minesh Parbat^{1,4}, Zahra Alsairafi⁵, Wanda Maldonado^{6,7}, Samira Osman¹, Zahraa Jalal^{1,4}

¹University of Birmingham, Birmingham, United Kingdom

²International Pharmaceutical Federation (FIP) Foundation for Education and Research, Singapore, Singapore

³National University of Singapore, Singapore, Singapore

⁴International Pharmaceutical Federation (FIP), Birmingham, United Kingdom

⁵Kuwait University, Kuwait, Kuwait

⁶University of Puerto Rico, Puerto Rico, Puerto Rico

⁷International Pharmaceutical Federation (FIP), Puerto Rico, Puerto Rico

Background: Good clinical leadership is a requirement of clinical staff for optimal patient care (Health Education England, 2022; Nicol et al., 2014). A recent systematic review found disagreement and ambiguity in leadership competencies conceptualisation within pharmacy education, highlighting the need for a consistent framework for leadership development (Reed et al., 2019). Pharmacists' roles are evolving into more clinical and leadership responsibilities. However, it is not clear how curricula changes within pharmacy education globally focus on leadership development.

Aim: This study aimed to explore pharmacy students' and educators' perceptions of leadership, leadership preparedness and development across Higher Education Institutions.



Methods: A cross-sectional and multi-regional study was conducted by distribution of a Microsoft Forms questionnaire

to pharmacy students and educators including at University of Birmingham, National University of Singapore and Kuwait University between November to December 2024. Questions were based on demographics, leadership perceptions, readiness, development and skills. Ethical approval was obtained from the University of Birmingham School of Pharmacy Safety and Ethics Subcommittee 2024.

Results: Out of 150 respondents with 135 students and 12 educators, majority recognised leadership and leadership skills importance as the profession evolves. However, only 5.19% (n=7) of students strongly agreed they were sufficiently being prepared for leadership roles in education. There was no statistically significant association between regions and leadership preparedness (p=0.540). A significant proportion of students (87.41%, n=118) and educators (83.33%, n=10) agreed and strongly agreed that pharmacy education should include more leadership development. Key themes were identified for leadership development gaps and improvements.

Conclusion: Pharmacy students could benefit from additional leadership development opportunities embedded within pharmacy education to enhance their leadership skills and preparedness. This study's findings majorly across three pharmacy educational programmes serve as a strong foundation for future research and the implementation of policies, practices and curricula changes for pharmacy leadership development globally.

Innovative assignment design for assessing key chemistry concepts in large MPharm cohorts: Boosting understanding with direct feedback while minimising collusion risks

Kimberley A Roper , Isolda Romero-Canelon 

School of Pharmacy, University of Birmingham, Birmingham, United Kingdom

Background: Grasping fundamental chemistry concepts is crucial for all pharmacy students to understand how drug molecules act as therapeutics and to develop critical thinking and problem-solving skills (Khan, Deimling & Philip, 2011). Early assessment of conceptually difficult topics can provide improvement opportunities through constructive feedback and set clear academic expectations, important in students' first year at university (Wilson & Wilson, 2019). However, it is challenging to assess simple chemical concepts outside of examinations due to the definitive nature of answers enabling collusion, while bespoke questions can be impractical and raise parity concerns.

Aim: To design a novel piece of chemistry coursework to fairly assess student understanding of simple chemical concepts

within a large cohort while limiting the potential for student collusion.

Method: An innovative assessment was designed using mail merge and parallel question banks to customise student assignments - allocating a comparable but personalised set of assessment questions to each student. Grade distribution between questions and to other assessments was analysed and student feedback collected through module surveys.

Results: The assignment was undertaken by multiple large cohorts of MPharm students (120-160), repeatedly achieving an overall normally distributed range of marks with no significant difference found between marks of parallel questions. Markers were able to grade efficiently and objectively while providing specific feedback, giving students answers without compromising future assessments. 83% of students agreed that feedback within the module helped with their assessments and highlighted the ability to gain a summative indication of their understanding and direct feedback on key concepts assisted future revision efforts.

Conclusion: Summative examination of simple chemistry concepts efficiently in large cohorts without enabling collusion was achieved. Students valued the direct feedback, using it to benchmark their progress and guide future study. This can be easily adapted to test other scientific and numerical concepts however careful subject selection is required.

Showcasing innovation and a patient-centred care approach with integrated clinical and communication skills for MPharm students

Rashmeet Bhogal, Jacob Chizzo, Samira Osman

University of Birmingham, Birmingham, United Kingdom

Background: Pharmacists in the UK NHS are increasingly recognised as independent prescribers leading to changes to undergraduate pharmacy education. (General Pharmaceutical Council, 2021). The GPhC competency framework requires students to be able to perform a holistic patient consultation including history taking, examination, diagnosis, prescribing and monitoring (General Pharmaceutical Council, 2021). However, hands-on clinical skills training within MPharm programmes remain limited, particularly in physical examination and patient-centred communication. This study looked at the feasibility of introducing structured respiratory examination in improving second-year MPharm students.

Aims: 1. To enable students to perform a structured respiratory examination and take a comprehensive patient history. 2. To take a holistic approach to patient consultations

including refusing a patient request for antibiotics and raising awareness of anti-microbial stewardship (Department of Health and Social Care, 2024).

Method: A three-station interactive practical was conducted, focusing on respiratory examinations (using an Advanced Clinical Educator and a simulated patient) and patient consultations. Students completed pre-session readings, participated in practical rotations, and received personalised feedback. A post-session survey assessed confidence, skill acquisition, and areas for improvement, incorporating both Likert-scale questions and open-ended responses. Ethical approval was not necessary and specific student demographic data was not captured.

Results: Among 34 respondents (response rate 27%), 82% agreed the session enhanced their understanding of respiratory examinations, while 82% reported improved confidence in handling difficult conversations. Qualitative responses highlighted hands-on practice with the ACE and scenario-based consultations as particularly valuable. Students suggested longer practice time and resources for OSCE preparation as key areas for improvement. Self-reported confidence levels were used as an indicator of skill development, though additional objective assessments are necessary to validate learning outcomes.

Conclusion: Structured practical sessions enhance clinical and communication skills development in MPharm students, improving their preparedness for patient-centred care. Expanding interactive training throughout the curriculum can strengthen competency in real-world settings. Future sessions should incorporate extended training, objective assessments, and longitudinal evaluations to assess skill retention.