

RESEARCH ARTICLE

Performance and perception of first-year pharmacy students in virtual vs. in-person OSCE

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Keywords

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Abstract

Background: This study compares virtual and in-person OSCEs by analysing two groups of first-year pharmacy students in hybrid and on-ground pathways. It assesses students' ability to apply clinical knowledge and demonstrate patient counselling in Pharmacy Practice Foundations courses. **Methods:** The study compared the performance of first-year pharmacy students participating in Virtual OSCEs ($n = 26$) and In-Person OSCEs ($n = 33$) using standardised rubrics for prescription and Over-the-counter (OTC) consultations. A post-assessment survey was collected from students, evaluators, and standardised patients to gather feedback on each format, guiding optimisation of Virtual OSCEs. **Results:** Among In-Person OSCE participants, 89% achieved passing scores on their first attempt, while 91% of Virtual OSCE participants achieved passing scores. The survey (65% response rate) revealed that 94% of all those involved (including students, standardised patients, and faculty evaluators, $n=79$) were comfortable using video conferencing software. Students from both formats rated high confidence in clinical skills after the course (86% In-Person, 87% Virtual). No statistically significant difference in overall OSCE scores was detected between the virtual and in-person formats (Mann–Whitney U test, $p = 0.179$). **Conclusion:** Both virtual and in-person OSCEs in the Hybrid-PharmD program were well received, with no significant difference in performance. All groups responded positively. However, the small sample size limited the ability to detect differences, and the study wasn't designed to prove equivalence.

Introduction

At the West Coast University (WCU) School of Pharmacy, the on-ground PharmD programme is a four-year comprehensive pharmacy programme with all In-Person activities that include didactics, laboratories, OSCEs, Co-curricular, and Interprofessional Educations (IPEs). The newly established hybrid PharmD programme in 2023 follows a three-year accelerated format, combining online didactic instruction with scheduled in-person immersive sessions that include exams, hands-on laboratory work, co-curricular activities, and IPE. While on-campus classes offer some advantages, hybrid learning also provides unique benefits (McCleary-Gaddy *et al.*, 2022; Singh *et al.*, 2021). One key advantage of the hybrid programme is its ability to accommodate geographically diverse students, allowing them to enrol and participate remotely. Through online platforms such as Zoom,

Intedashboard, and Class Technologies, students attend classes remotely, enabling flexibility and supporting students in their efforts to achieve the programme's learning outcomes. Hybrid delivery allows students to manage their schedules more effectively by reducing the need for frequent travel to campus and often maintains a healthier balance between academic and personal responsibilities. (Linder, 2017; McGee *et al.*, 2012).

The Pharmacy Practice Foundation I (PPFI) course is a 4 credit (60 hours) core course offered in the first term of the programme, per the PPFI 2022 and 2023 syllabi. This course introduces students to the foundation of pharmacy practice and provides training for students to apply theoretical knowledge in real-life scenarios (Gortney *et al.*, 2022). Objective structured clinical examination (OSCE) is key skills-based assessments in pharmacy education, commonly integrated into foundation courses to assess students' preparation for

introductory pharmacy practice experience (IPPE) (Song, *et al.*, 2023). In the PPFI course, the OSCE performance accounted for 10% of the course grade for the on-ground PharmD programme and 15% in the hybrid PharmD programme.

There are three main objectives of OSCE assessments in the first-year foundation course: (1) it serves as a check of the knowledge and skills students have gained in the didactic curriculum; (2) it prepares students with performance feedback before commencing their IPPEs; (3) it serves as a crucial assessment point to help the programme adapt to evolving educational standards (Lim *et al.*, 2024).

The global pandemic caused unprecedented global disruption, severely limiting in-person learning and assessment. In response, medical educators pursued alternative ways to assess and certify students and trainees, ensuring readiness to meet the demand for healthcare providers (Chan *et al.*, 2023). Since the pandemic, video conference platforms have become more prominent in the literature evaluating educational methods in health professional programmes. For instance, Jenkins *et al.* evaluated the satisfaction of examiners and candidates in a virtual OSCE conducted for graduating Canadian urology residents. The study reported high satisfaction levels among both groups, highlighting the benefits of using a teleconference format for a mock OSCE (Jenkins *et al.*, 2023). In their 2024 study on the transition to Virtual OSCE, Saeed *et al.* clearly established that both faculty and students held positive views about this new format. Their results demonstrated a high level of overall satisfaction with the Virtual OSCE, with the majority of attendees affirming that they would confidently recommend it to friends or colleagues (Saeed *et al.*, 2024).

At the WCU School of Pharmacy, the PPFI course provides students with foundational knowledge and skills in key areas including 1) the role and scope of community pharmacists, 2) foundational communication skills including structured interview frameworks and the Pharmacists' Patient Care Processes (PPCP), 3) self-care topics covering conditions such as minor pain and fever, cold and allergic rhinitis, ophthalmic disorders, otic and oral health, and women's health, 4) basic drug information, including introduction to the top 200 prescribed medications, and 5) APhA Pharmacy-Based Immunisation Delivery Certificate training programme. Given that students begin their IPPE in community pharmacy after completing their first semester, the first OSCE is strategically designed to prepare them for patient care in that setting. The examination includes two stations; station I focuses on prescription

consulting and station II focuses on self-care OTC counselling.

Despite increasing adoption of Virtual OSCEs in health professions education, there is still limited evidence comparing learning outcomes and stakeholder perceptions between Virtual and In-Person OSCE formats. Therefore, to address this gap in the literature, this study aims to compare OSCE performance and stakeholder perceptions across virtual and in-person formats. By evaluating two cohorts of first-year pharmacy students, the research measures differences in student performance, satisfaction, and confidence, alongside broader stakeholder feedback.

Methods

Study participants

This study was approved by WCU IRB (IRB#: 10032023_khansari_FtFvsHyb). Two cohorts of first-year pharmacy students nearing the completion of their first semester were included in this study (see Figure 1). The first cohort in Fall 2022 included 33 students enrolled in a 4-year on-campus PharmD programme who completed the OSCE in person. The second cohort in Fall 2023 consisted of 26 students enrolled in a 3-year accelerated hybrid PharmD programme who participated in a virtual OSCE. The survey was sent out to the students, standardised patients (SPs) and Evaluators on November 27, 2023. Two students participated in both the in-person and virtual OSCE formats. They were originally enrolled in the On-Ground programme in Fall 2022 and completed the in-person OSCE in November 2022. They subsequently transferred to the Hybrid Accelerated programme in Fall 2023 and completed the virtual OSCE in November 2023.

OSCE design

Both cohorts completed a structured, two-station OSCE as part of their Pharmacy Practice Foundations I course. The OSCE was designed to assess practical skills in two distinct areas: Station I: Prescription Counselling, where students were required to counsel a patient on a new prescription. Evaluations were conducted using a rubric based on the PPCP (Appendix A). Station II: Self-Care OTC Consultation, where students conducted a self-care consultation for an OTC product using the QuEST-SCHOLAR-MAC processes (Appendix B).

OSCE procedure

For each station, students were provided with a case scenario with three minutes to review either the

prescription or self-care script, a patient interaction with seven minutes to perform the consultation with a SP and five minutes of constructive feedback provided by

faculty evaluators and the SPs. An illustration of the OSCE design is provided in Figure 1.

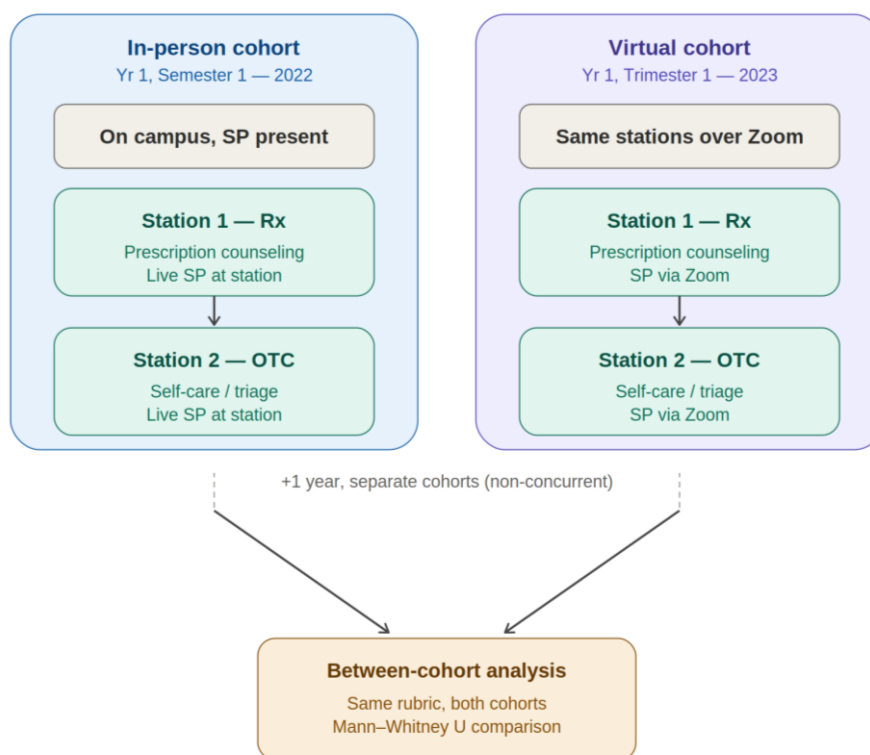


Figure 1: OSCE design

For calibration and standardisation of evaluators and SPs, faculty evaluators participated in an orientation session prior to the OSCE to review the scoring rubric and evaluation criteria to promote consistency in grading. The same standardised rubric was used across both Virtual and In-Person OSCE formats, with clearly defined scoring criteria aligned with the PPCP and QuEST-SCHOLAR-MAC framework. SPs received training prior to the OSCE sessions to ensure consistent portrayal of clinical scenarios and patient responses across student encounters. Training included reviewing the case scripts, expected patient responses, and feedback procedures to maintain consistency between student interactions in both OSCE formats.

Survey feedback on OSCE formats

A post-assessment survey was distributed to collect feedback from students, SPs, and faculty evaluators about their experiences with the virtual and in-person OSCEs. The survey was created using Microsoft Forms and disseminated via email. It included close-ended questions with Likert-scale response options (e.g.,

strongly disagree to strongly agree) to assess perceptions of the OSCE format.

To ensure the clarity and relevance of the survey questions, a pilot test was conducted with 1–2 participants. Feedback from the pilot test informed adjustments to the final survey distributed to the participants.

Statistical analysis

Descriptive statistics, including mean, median, and standard deviation, were calculated for OSCE scores to summarise cohort performance. Survey responses were analysed descriptively to identify themes and trends in the perceived advantages and challenges of virtual and in-person OSCEs. This feedback was used to develop recommendations for optimising the virtual OSCE format in the 3-year hybrid PharmD programme.

Statistical analysis of OSCE performance

To evaluate differences in student performance between the virtual and in-person OSCE formats, multiple statistical tests were conducted. The data were

first analysed using Julius software to test for normal distribution (using the Shapiro-Wilk test) and variance homogeneity (using Levene's test). Based on these results, for data that did not meet normality or homogeneity assumptions, a non-parametric comparison using the Mann-Whitney U test was employed to assess differences in performance between the two cohorts.

Statistical significance for all tests was defined as a *p*-value of <0.05. Overall scores were compared using the Mann-Whitney U test.

Ethics approval and informed consent

The manuscript is in accordance with the approved IRB protocol. The IRB number is 10032023_khansariPharmD_FtFvsHyb.

Results

The study population included students (both hybrid and on-ground programmes), evaluators, and SPs. Forty-four percent of the students participated in the hybrid programme, and fifty-six percent of the students participated in the on-ground programme.

Descriptive statistics summarising overall OSCE scores of Virtual and In-Person OSCEs are listed in Table I. Descriptive statistics comparing stations I and II for virtual and in-person OSCEs are listed in Table II.

Table I: Descriptive statistics of overall OSCE scores (virtual and in-person)

Metric	Virtual overall OSCE	In-person overall OSCE
Median	92.0	89.5
Q1 (25th Percentile)	85.0	86.0
Q3 (75th Percentile)	95.0	93.0
Minimum	80.0	80.0
Maximum	100.0	98.5
Interquartile Range (IQR)	10.0	7.0

Comparing virtual and in-person performance across two assessment stations

Station	Virtual n	Virtual median (IQR)	In-person n	In-person median (IQR)	Mann- Whitney U	<i>p</i> value	Rank-biserial correlation	Effect
Station I	26	89.5 (83.62–97.5)	33	91.0 (84.0–94.5)	479.0	0.449	0.117	Small
Station II	26	92.0 (84.25–98.88)	33	88.5 (81.0–94.0)	531.5	0.118	0.239	Small

Table II: Station-level comparisons between virtual and in-person OSCE formats

Station	Group	N	Mean ± SD	Median (IQR)	Min	Max
Station I	Virtual	26	90.75 ± 7.17	89.5 (13.88)	80	100
Station I	In-Person	33	89.68 ± 5.99	91.0 (10.50)	80	99
Station II	Virtual	26	91.37 ± 7.25	92.0 (14.62)	80	100
Station II	In-Person	33	88.59 ± 6.79	88.5 (13.00)	80	100

Normality and variance testing

Shapiro-Wilk tests revealed that virtual Overall OSCE scores (*p*=0.043) were non-normally distributed, while in-person Overall OSCE scores demonstrated a normal distribution (*p*=0.288).

Comparative analysis

Non-parametric Mann-Whitney U tests found no statistically significant differences between Virtual and In-Person modalities for overall OSCE scores (*p*=0.179).

As to the score distribution trends, the box plot visualisations (Figure 2) revealed the following trends: Both Virtual and In-Person assessments had similar median scores, with overlapping interquartile ranges.

The Virtual scores demonstrated slightly greater variability. The outliers were observed in both

modalities, predominantly at the lower end of the score range.

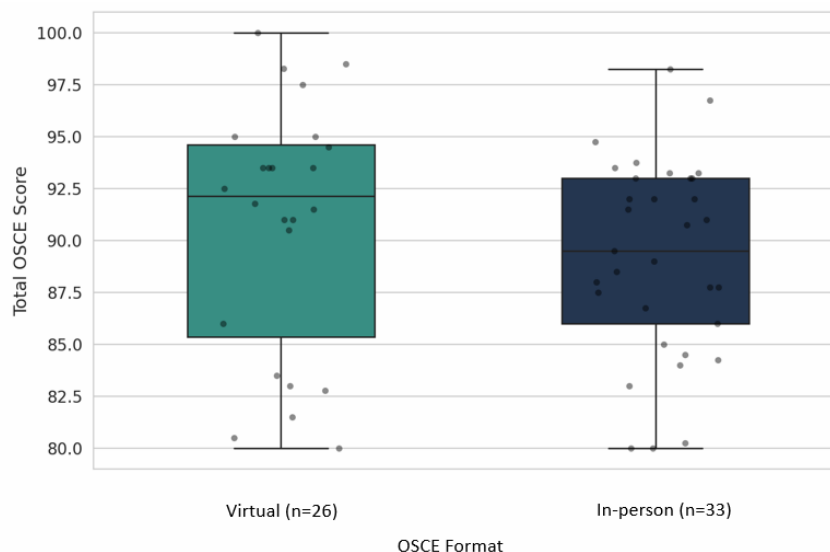


Figure 2: Overall OSCE score distribution box plot

Post-assessment survey respondents summary

The aggregated data were obtained from students, SPs, and evaluators, as all students, evaluators, and SPs were requested to answer the survey. Out of 79 stakeholders, 51 responded to the survey questions, including 38 students, 6 SPs, and 7 evaluators, resulting in a 65% response rate. To provide an overall assessment of perceptions across the OSCE formats, survey responses from all stakeholder groups were aggregated and analysed collectively, allowing for a comprehensive evaluation of shared experiences and in

response to small subgroup sample sizes (i.e., Students: in-person 33, virtual 26; Evaluators: 10, SPs: 10). Table III presents the responses of students, evaluators, and SPs regarding their perceptions of Virtual versus In-Person OSCE. Most participants either somewhat agreed or strongly agreed when asked about various aspects, such as preparation instructions, overall experience, the demonstration and evaluation of communication and clinical skills, and interactions with standardised patients in both Virtual and In-Person formats.

Table III: OSCE evaluation form survey

Statement	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree	Not applicable
The orientation and/or preparation instructions were adequate to prepare me for a Virtual OSCE	5 (9.8%)	5 (9.8%)	3 (5.9%)	6 (11.8%)	28 (54.9%)	4 (7.8%)
The orientation and/or preparation instructions were adequate to prepare me for an In-Person OSCE.	5 (9.8%)	4 (7.8%)	4 (7.8%)	4 (7.8%)	19 (37.3%)	15 (29.4%)
The Virtual OSCE was an acceptable assessment method.	5 (9.8%)	3 (5.9%)	4 (7.8%)	9 (17.6%)	23 (45.1%)	7 (13.7%)
The In-Person OSCE was an acceptable assessment method.	6 (11.8%)	3 (5.9%)	4 (7.8%)	3 (5.9%)	17 (33.3%)	18 (35.3%)
The Virtual OSCE platform was acceptable alternative to In-Person OSCE	5 (9.8%)	4 (7.8%)	5 (9.8%)	6 (11.8%)	22 (43.1%)	9 (17.6%)
The platform of Virtual OSCE allowed for a clear communication	6 (11.8%)	3 (5.9%)	5 (9.8%)	6 (11.8%)	25 (49.0%)	6 (11.8%)
Overall my experience with the Virtual OSCE was positive	8 (15.7%)	2 (3.9%)	4 (7.8%)	7 (13.7%)	24 (47.1%)	6 (11.8%)

Statement	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree	Not applicable
Overall my experience with the In-Person OSCE was a positive experience	9 (17.6%)	1 (2.0%)	4 (7.8%)	5 (9.8%)	18 (35.3%)	14 (27.5%)
The Virtual OSCE allowed appropriate demonstration and evaluation of communication skills	8 (15.7%)	1 (2.0%)	7 (13.7%)	5 (9.8%)	25 (49.0%)	5 (9.8%)
The In-Person OSCE allowed appropriate demonstration and evaluation of communication skills	6 (11.8%)	3 (5.9%)	2 (3.9%)	5 (9.8%)	19 (37.3%)	16 (31.4%)
The Virtual OSCE allowed appropriate demonstration and evaluation of clinical skills	4 (7.8%)	5 (9.8%)	6 (11.8%)	8 (15.7%)	22 (43.1%)	6 (11.8%)
The In-Person OSCE allowed appropriate demonstration and evaluation of clinical skills	5 (9.8%)	4 (7.8%)	3 (5.9%)	7 (13.7%)	18 (35.3%)	14 (27.5%)
The feedback provided during the Virtual OSCE will be useful in practice going forward	5 (9.8%)	3 (5.9%)	6 (11.8%)	6 (11.8%)	25 (49.0%)	6 (11.8%)
The portrayal of the standardised patient case through a Virtual encounter was believable	6 (11.8%)	1 (2.0%)	5 (9.8%)	4 (7.8%)	27 (52.9%)	8 (15.7%)
The exam environment felt similar to real-world clinical encounter in a Virtual OSCE	6 (11.8%)	3 (5.9%)	5 (9.8%)	6 (11.8%)	24 (47.1%)	7 (13.7%)
The exam environment felt similar to real-world clinical encounter in an In-Person OSCE	6 (11.8%)	4 (7.8%)	5 (9.8%)	6 (11.8%)	18 (35.3%)	12 (23.5%)
Interaction in a Virtual OSCE encounter was similar to an In-Person OSCE	5 (9.8%)	5 (9.8%)	6 (11.8%)	7 (13.7%)	19 (37.3%)	9 (17.6%)
The Virtual OSCE was as realistic as an In-Person OSCE	4 (7.8%)	5 (9.8%)	7 (13.7%)	5 (9.8%)	19 (37.3%)	11 (21.6%)

Communication skills assessments and method of OSCE delivery

Figure 3 shows respondents' responses to the demonstration and evaluation of communication skills in the OSCEs. Specifically, 30 respondents (58.8%) somewhat agreed or strongly agreed about their satisfaction with Virtual OSCEs, compared to 24 respondents (47.1%) for In-Person OSCEs. Please see Figure 3 for further illustrations.

The survey questioned the perceptions of the students, SPs, and evaluators on the effectiveness of orientation and preparation, the assessment method, communication skills evaluation, and effectiveness of clinical skills in both Virtual and In-Person OSCE sessions. A summary of responses is presented in Figure 4 below. In general, students strongly and moderately agree with the effectiveness of both OSCE delivery methods.

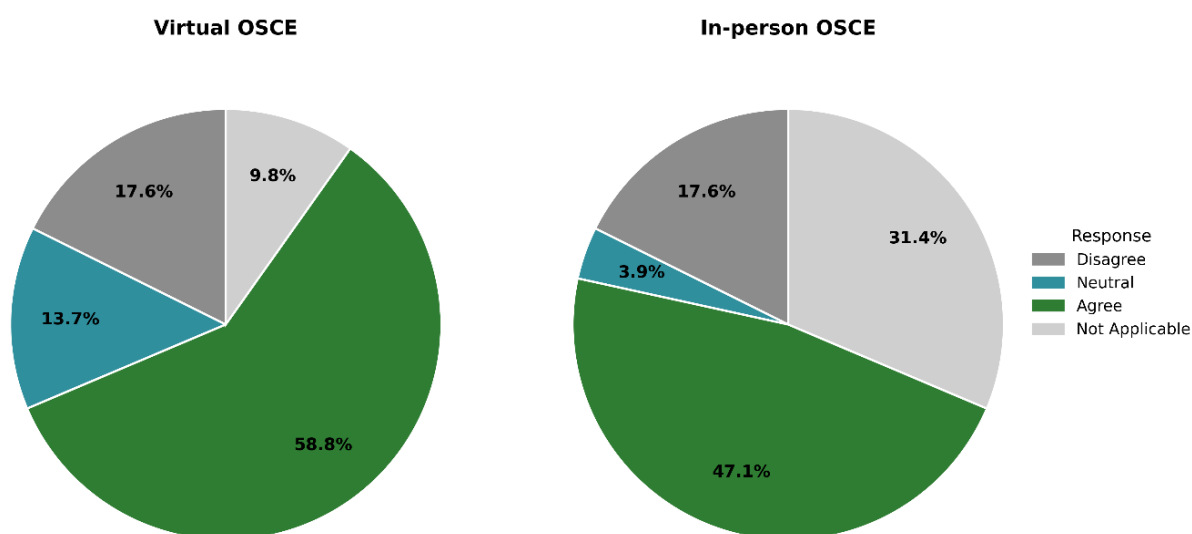


Figure 3: Communication skills assessment in OSCE formats comparison of virtual vs in-person OSCE effectiveness

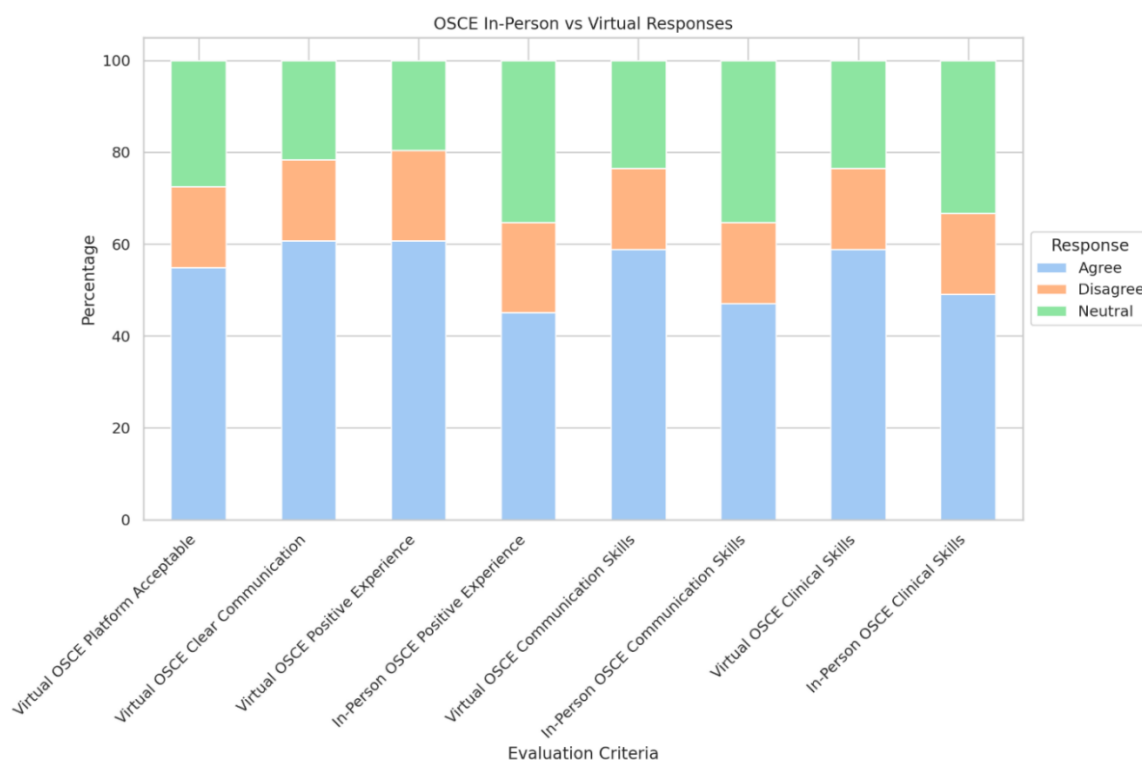


Figure 4: Comparison of virtual Vs in-person OSCE metrics (Combined "Somewhat Agree" and "Strongly Agree" responses)

Discussion

Random assignment to OSCE format was not feasible, as students were enrolled in either the hybrid or the on-ground PharmD programme. To minimise potential confounding variables, both cohorts completed OSCEs with identical clinical cases, standardised patient interactions, evaluation rubrics, and station structures, and the assessments were administered at the same point in the curriculum (end of the first semester of the Pharmacy Practice Foundations I course). These measures were implemented to ensure consistency in the evaluation of student competencies across both OSCE delivery formats.

The statistical analysis revealed that both Virtual and In-Person training had no statistically significant difference in the performance of first-year pharmacy students in prescription and self-care patient consultations. These findings align with similar studies which found no significant differences between Virtual and In-Person OSCEs regarding student performance (Gortney *et al.*, 2022; Song *et al.*, 2023). Despite a slightly higher measured result for Virtual OSCE performance compared to In-Person OSCE (median 92% vs. 89.5%), no statistically significant difference could be confirmed (p -value > 0.05). Within the survey comments, some

students mentioned that the Virtual OSCE offered the added comfort of testing from home, less anxiety, and fewer distractions compared to those in the In-Person OSCE, with the pressures of a classroom environment and the presence of fellow students. One question for future exploration is to explore the impact of virtual OSCEs on test anxiety, perceived control, and logistical demands. Because anxiety was not directly measured, interpretations from limited student comments remain speculative. When comparing the evaluations of Virtual and In-Person OSCEs through the post-assessment survey feedback, the perceptions of both formats were similar, with no significant overall difference reported by students, SPs, and evaluators. However, some student comments suggested that virtual OSCEs offered clearer and more effective preparation instructions. These comments are consistent with findings from Wollen *et al.*, who observed that virtual OSCEs required less assessment time than in-person OSCEs (Wollen *et al.*, 2023).

Wollen *et al.* noted that a limitation of Virtual OSCEs is the difficulty in verifying if students are making eye contact with the patient on screen, which raises concerns about academic honesty and the potential for accessing prohibited materials (Wollen *et al.*, 2023). While Virtual OSCEs excel and may be explored further

for their benefits in organisation and efficiency, In-Person OSCEs may be preferable for ensuring authentic patient interactions and maintaining academic integrity.

Two students participated in both the in-person and virtual OSCE formats; while the number of such students is small, their inclusion does not bias the group comparisons because they were treated as separate cohort members in each analysis, not as repeated measures. Ultimately, both formats have their potential strengths; the choice between Virtual and In-Person OSCEs should be guided by the specific objectives of the assessment, the desired environment, available resources, and the aspects of student performance that are most important to evaluate.

OSCEs are integral to pharmacy education, serving as a bridge between theoretical knowledge and practical application. Studies by Cheema & Ali (2021) and Shirwaikar (2015) reinforce their role as reliable and valid tools for competency assessment in pharmacy education. Incorporating Virtual OSCEs into hybrid programmes offers accessible solutions, particularly in post-pandemic education models. The findings of this study support the integration of Virtual OSCEs as part of a flexible and comprehensive assessment strategy in pharmacy curricula.

Limitations

This study has several limitations. First, participants were not randomly assigned to OSCE format, as students were enrolled in either the hybrid or in-person PharmD programme. Despite using identical cases, rubrics, and OSCE structure, familiarity and prior use of technologies could potentially contribute to confounding factors. Second, the relatively small sample size may have limited statistical power to detect small differences between formats. In addition, evaluator awareness of OSCE modality may have introduced potential assessment bias. Finally, the moderate survey response rate (65%) may introduce nonresponse bias. These limitations warrant further studies to support the experimental findings.

Conclusion

The positive feedback on the Virtual OSCE highlights its efficiency and convenience, while the In-Person OSCE continues to offer valuable real-world interactions. The findings suggest that the choice of OSCE format should be based on specific assessment goals and environmental reality. In future research, we should address the challenge of internet stability to enhance

the Virtual OSCE experience. Moreover, we may also utilise Artificial Intelligence (AI) tools in both Virtual and In-Person OSCE formats.

Future research should move beyond acceptability alone to test which OSCE delivery features drive perceived feasibility and educational value. First, studies should evaluate hybrid OSCE models (e.g., virtual communication-focused stations paired with in-person physical assessment or device-based stations) to determine whether modality can be intentionally matched to competency domains while improving standardisation and reducing extraneous logistical burden. Second, given the growing feasibility of AI-enabled supports, future work could examine AI for standardised rater training, checklist consistency checks, transcript-supported feedback, or structured analysis of communication behaviours, while explicitly assessing validity, bias, privacy implications, and effects on rater cognition and workload. Finally, because the current design does not address downstream outcomes, longitudinal studies should assess the long-term impact of virtual, in-person, and hybrid OSCE exposure on subsequent clinical performance, learner confidence retention, and workplace readiness (e.g., experiential /preceptorship evaluations), ideally using multi-site designs and objective outcomes to improve generalisability and reduce confounding.

Conflict of interest

The authors declare no conflict of interest.

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Appendix A: Rubric for virtual/in-person OSCE station I - Prescription consultation

Student Name: _____

Evaluator: _____

Professional Communication (PLO 6)	Done?	Points	Points Gained
Student identified him/herself as a “student pharmacist” or “pharmacy intern”.	☐	0.5	
Student wore a lab coat and name badge and was dressed professionally.	☐	0.5	
Student demonstrated good nonverbal communication skills (e.g., good eye contact, appropriate rate of speech, adequate use of body language, displayed confidence in interacting with patient and providing instructions etc.) <i>Use of multiple facets of non-verbal communication: 1 Point; Otherwise, 0.5 Points</i>	☐	1	
Student pharmacist states purpose of consultation and/or time needed, i.e., let patient/patient’s agent know that pharmacist would like to talk about the medication and how long it would take <i>Both purpose and duration stated: 1 Point; Either purpose or duration stated: 0.5 Points</i>	☐	1	
Student pharmacist used medical terminology appropriate for a patient (or provided explanation if the medical jargon was used). <u>Medical jargon used:</u>	☐	0.5	
Student pharmacist listened to what the patient had to say and did not interrupt.	☐	0.5	
Student pharmacist completed the consultation in the time allotted and provided an appropriate closing to the conversation.	☐	0.5	
Student pharmacist displayed confidence in interacting with the patient and providing instructions.	☐	0.5	
Points total this section			/5
Collect Patient Information (PLO 1.3) – PPCP Collect	Done?	Points	Points Gained
Student pharmacist verified patient information utilizing 2 patient identifiers: (Name, DOB, address, telephone # etc.) <i>1 or no identifier requested: 0 Points</i>	☐	2	
Student pharmacist inquired about medication allergies and food allergies <i>Asked separately: 0.5 point each</i>	☐	1	
Student pharmacist verified that medication profile is up-to-date.	☐	1	
Student asked if the patient was taking any over-the-counter medications or supplements. <i>Asked both OTC drug and herbal supplements: 1 Point; Asked One: 0.5 Points</i>	☐	1	
Points total this section			/5
Collect Patient Information (PLO 1.3) – PPCP Collect/Assess	Done?	Points	Points Gained
Student pharmacist gathers patient information with open ended questions:			
1 st prime question (Purpose) “What were you told this medication is for?” <i>(Open Ended Questions: 2 Points; Closed ended: 1 Point)</i>	☐	2	
2 nd prime question (Directions) “How were you told to take this medication?” <i>(Open Ended Questions: 2 Points; Closed ended: 1 Point)</i>	☐	2	
3 rd prime question (Expectations/Monitoring) “What were you told to expect from the medication?” <i>(Open Ended Questions: 2 Points; Closed ended: 1 Point)</i>	☐	2	
Points total this section			/6
Patient Counseling (PLO 1.2, 1.3, 4.1) – PPCP Plan/Implement	Done?	Points	Points Gained
Student pharmacist provided patient information regarding the name, strength and the indication of the medication.	☐	10	
Student pharmacist provided patient information on administration of the medication, including special instructions.	☐	10	
Student pharmacist provided patient specific information on the expected clinical effects of the medication.	☐	10	
Student pharmacist provided patient specific information on the side-effects of the medication (<i>at least 2: 5 points each</i>)	☐	10	
Student pharmacist provided relevant medication information (<i>5 Point for each</i>) ☐ Storage instructions	☐	15	

**Please choose a whole number for level (no fractions!)*

Student Name: _____ Evaluator: _____

Points total this section	/5
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Student pharmacist inquired about food allergies:	☐	3	
Student pharmacist inquired about medical conditions:	☐	3	
Points total this section		/15	
Self-Care Information Gathering (PLO 1.3, CLO 8) PPCP Collect/Assess			
Student pharmacist adequately and appropriately assessed condition and other relevant information.	☐	35	
E.g., symptoms, characteristics, onset, change over time, aggravating/alleviating factors, treatments tried so far, etc. (SCHOLAR)			
☐ Symptoms: What are the main and associated symptoms?			
☐ Characteristics: What is the situation like?			
☐ History: what has been done so far?			
☐ Onset: When did it start?			
☐ Location: Where is the problem?			
☐ Aggravating factors: What makes it worse?			
☐ Remitting factors: What makes it better?			
Each item for 3 points			
Student pharmacist identified if patient is an appropriate candidate for self-care:	☐	1	
Points total this section		/36	
Self-Care Treatment and Counseling (PLO 1.2, 1.3, 4.1, CLO 4, 5, 6) – PPCP Plan/Implement/ Follow-up			
Student recommended appropriate self-care non-pharmacologic measures	☐	5	
Student recommended appropriate self-care pharmacologic measures	☐	5	
Student pharmacist counseled patient on dosing	☐	5	
Student pharmacist counseled patient on onset of relief	☐	5	
Student provided patient specific information on the medication side-effects:	☐	5	
Student verified patient's understanding by performing "teach back" method (<i>Did not say repeat back to me everything I said</i>)	☐	10	
Student clarified/answered questions and recommended appropriate follow up	☐	5	
Points total this section		/40	
Overall assessment of the student as your pharmacist in this encounter* - (PLO 6 and 7)			
0 points <u>Fails OSCE</u> Level 1	1 point Level 2	2 point Level 3	3 points Level 4
4 points Level 5	Points this section		
Very poor job with encounter, concern for patient safety Or <u>significant</u> communication issue (i.e. – insults provider, is rude, etc.)	No patient safety concerns but notable deficits in knowledge or communication; sounds rehearsed/robotic	No patient safety concerns, missed some points	Overall very good job but missed a few minor points
Excellent job, ready for practice!			/4
Total score (100 points possible)			/100

*Please choose a whole number for level (no fractions!)