

Background

- The Accreditation Council for Pharmacy Education (ACPE) requires schools to assure that students are ready for APPE curriculum, but no professionally-recognized definition of 'APPE readiness' exists.¹
- Pharmacy programs vary in defining APPE readiness, but one-third use the American Association of Colleges of Pharmacy (AACCP) Entrustable Professional Activities (EPAs).²
- Little is known about how APPE preceptors perceive EPAs respective importance and entrustment in defining student's APPE readiness.

Objective

To characterize APPE preceptor's perceptions of individual EPA importance and expected entrustment towards determining student's APPE readiness.

Methods

- Connecticut preceptors with ≥1 APPE student in the prior 12 months were surveyed anonymously (Qualtrics^{XM}) in the fall of 2022.
- For each EPA, 5-point Likert scales gauged respondent's (1) perceived importance in defining APPE-readiness; and (2) the level of entrustment they expect of a student on the first day of their first APPE.³ One open-ended question asked what made a student *not* APPE ready.
- Data was analyzed in SPSS with descriptive statistics, Kruskal-Wallis and Mann-Whitney tests. Inductive coding analyzed open-ended answers.
- Strong, moderate and weak consensus on individual EPA importance and entrustability were set at ≥75%, 50-74%, and <50% agreement or disagreement, respectively.³

Results

- 134 responses were received (response rate: 31%); only 94 were included in the final analysis due to incomplete data.
- Responders were mostly female (71%), licensed for 9.5 years (IQR: 5.8 to 18), and had 5 years (IQR 2.8 to 10.3) of APPE preceptor experience.
- Represented practice settings included: internal medicine (22%), ambulatory care (16%), community (15%), institutional (14%), other direct patient care (14%), and non-direct patient care (17%).
- One EPA (i.e., #13, Pharmacy Operations) was perceived as 'Unimportant,' but with 'Weak Consensus.'
- Ambulatory care preceptors ranked population health and care planning EPAs (e.g., #4, #5, #8) more important than preceptors from other settings.
- Comments on lack of APPE readiness (N=87) cited professionalism (70%), practice skills (52%), or foundational knowledge (31%) as issues.

Table 1. Preceptors' Consensus of EPAs' Importance in Defining APPE Readiness, by Rank.

	Rank Order (%)	Median (IQR)
<i>Strong Consensus</i>		
EPA 1: Collect information to identify a patient's medication related problems and health-related needs	1 (91.5)	5 (4-5)
EPA 12: Use evidence-based information to advance patient care	2 (89.4)	4 (4-5)
EPA 2: Analyze information to determine the effects of medication therapy, identify medication-related problems, and prioritize health-related needs	3 (88.3)	4 (4-5)
EPA 16: Use knowledge of commonly used medications, formulations, and products	4 (87.2)	5 (4-5)
EPA 6: Collaborate as a member of an interprofessional team	5 (86.0)	5 (4-5)
EPA 8: Minimize adverse events and medication errors	6 (84.9)	4 (4-5)
EPA 9: Maximize appropriate use of medications in a population	7 (83)	4 (4-5)
EPA 17: Justifies recommendations to the healthcare provider	7 (83)	4 (4-5)
EPA 11: Educate patients and professional colleagues regarding the appropriate use of medications	9 (80.9)	4 (4-5)
EPA 3: Establish patient-centered goals and create a care plan for a patient in collaboration with the patient, caregiver(s), and other health professionals that is evidence-based and cost-effective	10 (77.4)	4 (4-4)
<i>Moderate Consensus</i>		
EPA 5: Follow up and monitor a care plan	11 (74.5)	4 (3.25-5)
EPA 4: Implement a care plan in collaboration with patients, caregivers, and other health professionals	12 (65.5)	4 (3-4)
EPA 7: Identify patients at risk for prevalent diseases in a population	13 (64.5)	4 (3-4)
<i>Weak Consensus</i>		
EPA 14: Fulfill a medication order	14 (49.5)	3 (2-4)
EPA 15: Create a written plan for continuous professional development	15 (46.8)	3 (2.25-4)
EPA 10: Ensure patients have been immunized against vaccine-preventable diseases	16 (44.7)	3 (2-4)

Table 2. Preceptors' Consensus on EPA' Entrustability in Defining APPE Readiness.

Entrustment*	Consensus	EPA
Full Supervision	Strong	EPA 4: Implement a care plan in collaboration with patients, caregivers, and other health professionals
Full Supervision	Moderate	EPA 3: Establish patient-centered goals and create a care plan for a patient in collaboration with the patient, caregiver(s), and other health professionals that is evidence-based and cost-effective
		EPA 6: Collaborate as a member of an interprofessional team
		EPA 11: Educate patients and professional colleagues regarding the appropriate use of medications
		EPA 14: Fulfill a medication order
Nearby Supervision, With Work Checked Soon Thereafter	Moderate	EPA 17: Justifies recommendations to the healthcare provider
		EPA 7: Identify patients at risk for prevalent diseases in a population
Full Supervision	Weak	EPA 10: Ensure patients have been immunized against vaccine-preventable diseases
		EPA 5: Follow up and monitor a care plan
Nearby Supervision, With Work Checked Soon Thereafter	Weak	EPA 8: Minimize adverse events and medication errors
		EPA 12: Use evidence-based information to advance patient care
		EPA 1: Collect information to identify a patient's medication related problems and health-related needs
Nearby Supervision, With Work Checked Soon Thereafter	Weak	EPA 2: Analyze information to determine the effects of medication therapy, identify medication-related problems, and prioritize health needs
		EPA 5: Follow up and monitor a care plan
		EPA 9: Maximize appropriate use of medications in a population
		EPA 15: Create a written plan for continuous professional development
Nearby Supervision, With Work Checked Soon Thereafter	Weak	EPA 16: Use knowledge of commonly used medications, formulations, and products
		EPA 16: Use knowledge of commonly used medications, formulations, and products

*Asked as: "On the FIRST DAY of their FIRST APPE, I would expect to TRUST the AVERAGE APPE student to perform this activity with..."

Discussion

- Preceptors from diverse settings achieved strong consensus on EPAs importance in defining APPE readiness, especially for EPA domains in Pharmacist's Patient Care Process (PPCP), Evidence-Based Medicine, and Interprofessional Collaboration.
- Competencies beyond knowledge and demonstration of rote skills should be included in defining 'APPE readiness.'
- Preceptors expected students to do more than just observe on their first APPE, but the extent of preceptor's expected entrustment beyond observation is still unknown.

Conclusions

Preceptors tend to agree on what EPAs define APPE readiness, and schools could prioritize EPAs in Patient Care, Information Master, and Professionalism domains when assessing their student's readiness.