Preceptor Perceptions of Entrustable Professional Activities

Lena M. Maynor, PharmD, BCPS[1]; Hunter Highlander, PharmD Candidate[2], Ashleigh Barrickman, PharmD[1]

[1]West Virginia University School of Pharmacy, Department of Clinical Pharmacy; [2]West Virginia University School of Pharmacy

INTRODUCTION

- Entrustable professional activities (EPAs) are units of professional output or descriptors of work, which represent specific tasks or responsibilities that learners are entrusted to perform without supervision once they have attained sufficient competence. [1,2]
- The concept of EPAs was first described by ten Cate in 2005, and EPAs were originally used to translate individual competencies within graduate medical education into discrete observable units of work able to be measured and assessed. [2,3]
- EPAs typically incorporate multiple supporting statements or competencies that must be successfully completed in order for an entrustment decision to be made.[3]
- In 2017, Core EPAs for New Pharmacy Graduates were published. These Core EPAs represent critical tasks that all new pharmacy graduates must be able to perform without direct supervision.[1]
- Knowing baseline perceptions of preceptors regarding the Core EPAs is valuable as PharmD programs decide how to integrate EPAs into experiential curricula.

OBJECTIVES

- The primary objectives of this study were to determine preceptor perceptions of the importance of the Core EPAs for New Pharmacy Graduates and the expected level of supervision for pharmacy students at the beginning of the Advanced Pharmacy Practice Experiences (APPEs).
- Secondary outcomes included comparing responses to survey questions among preceptor subgroups, including gender, years of pharmacist and preceptor experience, practice setting, residency training, and pharmacy degree obtained.

METHODS

- This IRB approved study was conducted in the Fall 2017 semester.
- All WVU APPE pharmacist preceptors were mailed a hard copy survey with a pre-paid return envelope. The mailing also included a cover letter and a description of AACP Core EPAs with supporting tasks for each.
- Respondents were asked to rank the importance of each Core EPA, except "Creates a written plan for continuous professional development", for entry-level pharmacists from 1 (not at all important) to 5 (essential).
- Respondents were also asked to rank the expected level of supervision for students beginning APPEs from 1 (observe only) to 5 (can supervise junior students) for each EPA.
- Seventy three of 265 surveys (27%) were returned. All returned surveys were included in data analysis.
- Additional subgroup comparisons were completed for gender, years of pharmacist and preceptor experience, practice setting, residency training, and pharmacy degree obtained using a Mann Whitney U Test.

METHODS

AACP Core EPAs for New Pharmacy Graduates*	
Patient Care Provider Domain	
EPA 1	Collect information to identify a patient's medication-related problems and health-related needs.
EPA 2	Analyze information to determine the effects of medication therapy, identify medication-related problems, and prioritize health related needs.
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 4	Implement a care plan in collaboration with the patient, caregivers, and other health related professionals.
EPA 5	Follow-up and monitor a care plan.
Interprofessional Team Member Domain	
EPA 6	Collaborate as a member of an interprofessional team.
Population Health Promoter Domain	
EPA 7	Identify patients at risk for prevalent diseases in a population.
EPA 8	Minimize adverse drug events and medication errors.
EPA 9	Maximize the appropriate use of medications in a population.
EPA 10	Ensure that patients have been immunized against vaccine preventable diseases.
Information Master Domain	
EPA 11	Use evidence-based information to advance patient care.
Practice Manager Domain	
EPA 12	Oversee the pharmacy operations for an assigned work shift.
EPA 13	Fulfill a medication order.

**AACP Core EPA "Create a written plan for continuous professional development" was excluded from this survey.*

RESULTS

How essential is each EPA for an entry-level pharmacist?*

	EPA 1	EPA 2	EPA 3	EPA 4	EPA 5	EPA 6	EPA 7	EPA 8	EPA 9	EPA 10	EPA 11	EPA 12	EPA 13
All	4.64	4.68	4.4	4.28	4.24	4.58	4	4.73	4.34	4.11	4.51	4.05	4.76
Male (n= 35)	4.6	4.63	4.46	4.31	4.17	4.57	3.91	4.69	4.26	4.03	4.37	4.14	4.69
Female (n=33)	4.79	4.82	4.38	4.27	4.3	4.58	4	4.7	4.3	4.09	4.42	3.88	4.73
Preceptor < 10 years (n=32)	4.81	4.78	4.55	4.41	4.31	4.53	3.91	4.69	4.28	4.09	4.56	3.88	4.63
Preceptor > 10 years (n=41)	4.59	4.66	4.32	4.2	4.17	4.59	4	4.68	4.28	3.98	4.32	4	4.66
Pharmacist < 10 years (n=29)	4.79	4.79	4.57	4.45	4.31	4.52	3.93	4.69	4.28	4.07	4.55	3.79	4.62
Pharmacist > 10 years (n=44)	4.61	4.66	4.32	4.18	4.18	4.59	3.98	4.68	4.28	4	4.34	4.05	4.66
Community Practice (n=19)	4.53	4.63	4.21	4.11	**3.79**+	4.47	3.89	4.79	4.32	4.37	**4.21**+	**4.63**+	4.89
Other Practice (n=54)	4.74	4.74	4.49	4.35	**4.39**+	4.59	3.98	4.65	4.26	3.91	**4.5**+	**3.7**+	4.56
Residency Training (n = 27)	4.85	**4.89**+	4.54	4.37	4.44	4.59	4	**4.85**+	4.35	4.04	4.48	**3.59**+	4.63
No Residency training (n=46)	4.59	**4.61**+	4.35	4.24	4.11	4.54	3.93	**4.59**+	4.24	4.02	4.39	**4.15**+	4.65
PharmD (n=52)	4.73	**4.79**+	4.47	4.37	4.31	4.58	4	4.75	4.31	4.06	4.5	3.92	4.62
No PharmD (n=21)	4.57	**4.52**+	4.29	4.1	4.05	4.52	3.86	4.52	4.19	3.95	4.24	4	4.71

**Scale: 1=Not at all important, 2=Nice to have, but not essential, 3=Somewhat important, 4=Important, 5=Essential*
+p value <0.05

RESULTS

What level of supervision should a P4 student require at the beginning of APPE Block 1?*

	EPA 1	EPA 2	EPA 3	EPA 4	EPA 5	EPA 6	EPA 7	EPA 8	EPA 9	EPA 10	EPA 11	EPA 12	EPA 13
All (n=73)	3.57	3.26	2.96	2.88	3.14	3.34	3.47	3.38	3.31	3.39	3.57	2.5	2.96
Male (n= 35)	3.66	3.17	2.83	2.83	3.11	3.37	3.37	3.17	3.17	3.34	3.31	2.31	2.71
Female (n=33)	3.52	3.27	3	2.82	3.09	3.21	3.36	3.36	3.21	3.21	3.58	2.42	2.94
Preceptor < 10 years (n=32)	3.78	3.28	2.97	2.72	3.16	3.41	3.41	3.31	3.34	3.5	3.66	2.22	2.75
Preceptor > 10 years (n=41)	3.46	3.27	2.95	2.98	3.07	3.22	3.44	3.32	3.15	3.15	3.32	2.49	2.88
Pharmacist < 10 years (n=29)	3.76	3.24	3.03	2.72	3.14	3.45	3.48	3.28	3.28	3.52	3.66	2.14	2.69
Pharmacist > 10 years (n=44)	3.5	3.3	2.91	2.95	3.09	3.2	3.39	3.34	3.2	3.16	3.34	2.52	2.91
Community Practice (n=19)	3.53	3.21	2.89	2.89	3	3.53	3.37	3.29	3.26	3.53	3.42	2.53	3.05
Other Practice (n=54)	3.36	3.3	2.92	2.85	3.15	3.22	3.44	3.33	3.22	3.22	3.48	2.31	2.74
Residency Training (n = 27)	**3.33**+	**2.89**+	2.74	**2.41**+	**2.81**+	3.04	3.19	**2.93**+	2.96	**3**+	**3.15**+	**2.11**+	**2.48**+
No Residency training (n=46)	**3.76**+	**3.5**+	3.09	**3.13**+	**3.28**+	3.46	3.57	**3.54**+	3.39	**3.48**+	**3.65**+	**2.52**+	**3.02**+
PharmD (n=52)	3.54	3.15	2.87	**2.71**+	3	3.21	3.37	**3.13**+	**3.1**+	3.17	3.42	**2.15**+	**2.52**+
No PharmD (n=21)	3.76	3.57	3.19	**3.24**+	3.38	3.52	3.57	**3.76**+	**3.57**+	3.62	3.57	**2.9**+	**3.57**+

**Scale: 1=Observe only, even with direct supervision, 2=Perform with direct, proactive supervision, 3=Perform with reactive supervision (ie on request and immediately available), 4=Requires supervision at a distance and/or post hoc, 5=Can supervise more junior students*
+p value <0.05

IMPLICATIONS

- The majority of preceptors in this cohort agreed that Core EPAs 1-13 were either important or essential for an entry-level pharmacist.
- For nine of the 13 Core EPAs included in our survey, average responses from participating preceptors indicate an expectation that students should be able to perform with reactive (on demand and immediately available) supervision at the beginning of the APPE curriculum. This may indicate the need for preceptor education regarding expectations related to the assessment of entrustment and the need for direct observation in order for level of entrustment to be accurately assessed as EPAs are formally integrated into the experiential curriculum.
- Preceptors with residency training were more likely to indicate a need for more direct supervision of most Core EPAs. Additionally, preceptors with PharmD degrees were more likely to indicate a need for more direct supervision on 5 of 13 Core EPAs. It is possible that this is related to specialty practice area (although no difference in expectation was found with community setting compared to all other groups).

REFERENCES

1. Haines ST, Pittenger AL, Stolte SK, et al. Core Entrustable Professional Activities for New Pharmacy Graduates. American Journal of Pharmaceutical Education. 2017; 81(1):S2.
2. ten Cate O. Entrustability of professional activities and competency-based training. Medical Education. 2005; 39(12):1176-7.
3. ten Cate O, Chen HC, Hoff RG, Peters H, Bok H, van der Schaaf M. Curriculum development for the workplace using Entrustable Professional Activities (EPAs): AMEE Guide No. 99. Medical Teacher. 2015; 37(11):983-1002.