Report of the 2012-2013 Academic Affairs Standing Committee: Revising the Center for the Advancement of Pharmacy Education (CAPE) Educational Outcomes 2013

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Background and Charges

Started under the then Center for the Advancement of Pharmaceutical Education, Educational Outcomes were first developed and released in 1994 and then revised in 1998 and 2004.[1-2] The Educational Outcomes were intended to be the target toward which pharmacy curricula should be aimed. Previous revisions were in response to changes in both practice and higher education. The 2010-11 Academic Affairs Standing Committee recommended that the Association reconvene a Panel to examine the affective domain since the current and previous iterations of the Educational Outcomes focused primarily on the cognitive domain.[3] Then President Brian L. Crabtree in Spring 2012 charged that the now Center for the Advancement of Pharmacy Education (CAPE) Panel be reconvened with consent of the AACP Board of Directors to undertake a revision of the CAPE Educational Outcomes. President J.Lyle Bootman continued this charge and appointed the CAPE Panel to meet *in lieu* of the 2012-13 Academic Affairs Standing Committee.

The purpose of this Report is to provide an overview of the process undertaken by the CAPE Panel to revise the CAPE Educational Outcomes. The revised CAPE Educational Outcomes themselves will be presented in their entirety in a separate publication in the *Journal.*[4]

Methodology

In keeping with the composition of previous CAPE Panels, both academics and practitioners were invited to join the Panel. Letters of invitation were sent to each member organization of the Joint Commission of Pharmacy Practitioners (JCPP) to appoint a representative from their membership to serve on the CAPE Panel. The remaining Panel was selected from the AACP membership to represent academic pharmacy. The Panel was selected and balanced on type of institution, discipline, role, practice type, and geographic distribution among other factors to ensure a representative group. The members of the CAPE Panel and their respective affiliations are listed in Table 1.

The first meeting occurred May 1-2, 2012 in a joint session with colleagues from the Interprofessional Education Collaborate (IPEC) to gain input about the future directions of competencies among the various health professions. IPEC representation included the Association of American Medical Colleges (AAMC), American Association of Colleges of Osteopathic Medicine (AACOM), American Association of Colleges

of Nursing (AACN), and the American Dental Education Association (ADEA) as well as a patient care advocate. Four general areas of guidance for the CAPE revisions emerged after the IPEC session and further Panel deliberation:

- Include an affective domain that addresses personal and professional skills, attitudes and attributes required for the delivery of patient care,
- Frame outcomes that are forward thinking and aspirational, yet achievable and measurable,
- Continue the commitment to a firm grounding in the science of the profession,
- Align the outcome statements with other health professions in core content and language

Three additional themes emerged that focused on the structure of the CAPE document. The first theme focused on including a preamble to provide insight about the background and intent of the revisions and a glossary to define key terms and increase clarity and consistency in interpretation of key terms. The second theme related to finding the appropriate balance of detail in the outcome statements, while attending to minimizing redundancy in order to facilitate assessment. Including too much detail would be overly prescriptive for programs, while too little detail may not offer programs enough guidance. Finally, the last theme addressed the importance of writing measurable, evidence-based outcomes aimed at the level of an entry-level generalist practitioner.

Representatives from the CAPE Panel attended the "Listening Session" held at the 2012 AACP annual meeting in July. The feedback received supported and validated the discussion from the initial CAPE Panel meeting in May. Six CAPE Panel members also participated in the ACPE September 2012 Summit titled, "Advancing Quality in Pharmacy Education: Charting Accreditation's Future" and shared pertinent information with the remaining CAPE Panel. The Summit further validated the Panel's plans for the CAPE revision.

CAPE Panel members read through an extensive series of background readings and worked through smaller group assignments in preparation for convening October 29-30, 2012. During the October meeting a conceptual framework was developed with 4 broad domains and associated subdomains shown in Tables 2 and 3. The domains and subdomains were designed to offer structure, limit redundancy, and maximize the development of evidence-based measurable outcome statements. Furthermore, they were created to intersect and were not intended to be viewed as isolated outcomes. The Panel also consciously embedded concepts from CAPE 2004 into this revision, especially in the Essential for Practice and Care domain. From October to December, that Panel was divided into workgroups to review subdomain concepts, define terminology, and identify pertinent literature.

A series of weekly CAPE panel webinars were held in January through April 2013. The focus of these webinars was to write learning outcome statements and example student learning objectives for each subdomain. The conceptual framework and progress was presented at the February 2013 AACP Interim Meeting. May through June 2013, Panel members worked on finalizing the background, preamble, educational outcome statements, glossary, and references. The final CAPE 2013 Educational Outcomes were presented at the AACP Annual meeting in July 2013.

CAPE 2013 moving forward

The CAPE 2013 Educational Outcomes makes it clear that a singular focus on preparation in the sciences and the cognitive domain is not sufficient educate pharmacists to function as part of an interprofessional team and to practice at the highest level to improve patient outcomes. Attention must be paid to the skills needed to educate, collaborate, and communicate with diverse audiences, as well as to the importance of leadership, self-awareness, professionalism, and innovation. Reexamination of programmatic educational outcomes in context of this revision should include attention to admissions as this examination is critical to assure candidates are prepared to advance in all essential domains of the professional program. CAPE 2013 will help to inform the AACP taskforce looking at revising the PCAT exam to broaden the knowledge, skills, and attitudes examined, which is similar to academic medicine initiatives.

Overall, the CAPE 2013 Educational Outcomes define the curricular priorities of Doctor of Pharmacy programs and inform other health professions of those priorities, inspire and guide curricular revision and innovation, serve as the target for curriculum mapping, and function as a core component of a comprehensive assessment plan to assure achievement of the outcomes by the end of the professional program.

References

1. Association of Colleges of Pharmacy. Educational Outcomes 1998. Alexandria VA: Center for the Advancement of Pharmaceutical Education Outcomes; 1998. Available at: http://www.aacp.org/resources/education/cape/Documents/CAPE%20Outcomes%20Document%201998.pdf.

2. American Association of Colleges of Pharmacy. Educational Outcomes 2004. Alexandria VA: Center for the Advancement of Pharmaceutical Education Outcomes; 2004. Available at: http://www.aacp.org/resources/education/Documents/CAPE2004.pdf.

3. Mason HL, Assemi M, Brown B, Cain JJ, Cox WC, Cutler SJ, Duba VK, Robinson ET, Plaza CM. Report of the 2010-2011 academic affairs standing committee. *Am J Pharm Educ*. 2011; 75(10): Article S12.

4. Medina MS, Plaza CM, Stowe CD, Robinson ET, DeLander G, Beck DE, Melchert RB, Supernaw RB, Roche VF, Gleason BL, Strong MN, Bain A, Meyer GE, Dong BJ, Rochon J, Johnston P. Center for the Advancement of Pharmacy Education (CAPE) Educational Outcomes 2013. *Am J Pharm Educ*. 2013; *in press*.

Table 1 – CAPE Panel Members

AACP Appointees	JCPP Appointees*
Melissa S. Medina, EdD, Chair The University of Oklahoma College of Pharmacy	ACPE Appointee: **Victoria F. Roche, PhD** Creighton University School of Pharmacy and Health Professions
Cecilia M. Plaza, PharmD, PhD, Staff Liaison American Association of Colleges of Pharmacy	ACCP Appointee: **Brenda L. Gleason, PharmD** St. Louis College of Pharmacy
Cindy D. Stowe, PharmD University of Arkansas for Medical Sciences College of Pharmacy	APhA Appointee: **Mark N. Strong, PharmD** Northern Navajo Medical Center Indian Health Service
Evan T. Robinson, PhD Western New England University College of Pharmacy	AMCP Appointee: **Amanda Bain, PharmD** The Ohio State University Health Plan, Inc
Gary E. DeLander, PhD Oregon State University College of Pharmacy	ASHP Appointee: **Gerald E. Meyer, PharmD, MBA** Thomas Jefferson University Jefferson School of Pharmacy
Diane E. Beck, PharmD University of Florida College of Pharmacy	NABP Appointee: **Betty J. Dong, PharmD** University of California at San Francisco School of Pharmacy
Russell B. Melchert, PhD University of Missouri-Kansas City School of Pharmacy	NASPA Appointee: **Jeffrey Rochon, PharmD** Washington Pharmacists Association
Robert B. Supernaw, PharmD Wingate University School of Pharmacy	NCPA Appointee: **Patty Johnston, RPh** Colony Drug and Wellness Center
*Joint Commission of Pharmacy Practitioners (JCPP) appointees where nominated from the following JCPP members: the American Association of Colleges of Pharmacy (AACP), the Accreditation Council for Pharmacy Education (ACPE), the American College of Clinical Pharmacy (ACCP), the American Pharmacists Association (APhA), the Academy of Managed Care Pharmacy (AMCP), the American Society of Health-System Pharmacists (ASHP), the National Association of Boards of Pharmacy (NABP), the National Alliance of State Pharmacy Associations (NASPA), and the National Community Pharmacists Association (NCPA)	

Table 2 - Four domains and what they mean

Domain	Meaning
Foundational knowledge	• Knowledge domain • The foundational scientific principles of pharmacy practice • Permeates all domains
Essentials for practice and care	• Skill domain • The "what" of pharmacy practice • Unique core roles expected of pharmacists
Approach to practice and care	• Skill domain • The "how" to approach pharmacy practice • Core skills necessary for pharmacists that are consistent with other healthcare providers
Personal and professional development	• Affective domain • The mindset needed for pharmacy practice that brings knowledge and skills together • Behaviors and attitudes necessary for pharmacists that are consistent with other healthcare providers

Table 3 - The subdomains and what they represent:

Domain	Subdomains and meaning
Foundational knowledge	• Learner (Learner)
Essentials for practice and care	• Patient-centered care (Caregiver) • Medication use systems management (Manager) • Health and wellness (Promoter) • Population-based care (Provider)
Approach to practice and care	• Problem solving (Problem Solver) • Educator (Educator) • Patient advocacy (Advocate) • Interprofessional collaboration (Collaborator) • Cultural sensitivity (Includer) • Communication (Communicator)
Personal and professional development	• Self-awareness (Self-aware) • Leadership (Leader) • Innovation and entrepreneurship (Innovator) • Professionalism (Professional)