
Why This Article Was Chosen.
Undergraduate and Graduate Medical Education occurs over a relatively short, defined period of time, with clearly defined goals and objectives. Continuing Professional Development (CPD) occurs over many decades and often has poorly defined goals and objectives with a paucity of structured curricula aimed at the practicing physician. As their careers develop, physicians tend to gravitate from a fairly broad focus to a more focused practice. Thus attempting to address educational needs of physicians as a group may be inadequate and specific practice-related gaps of individuals need to be considered when designing effective CPD programs.

Main Learning Points.
All six core competencies articulated by the ACGME are important, but, for the practicing physician, Practice Based Learning and Improvement (PBLI) serves as the principle core competency that helps define the specific needs in the other 5 core competencies. PBLI involves a series of steps. The first is to review data relating to professional practices and patient outcomes and compare these data to local, regional and national standards to define specific gaps. The second step is selecting and participating in appropriate CPD programs to address the gaps identified. The third step is applying the new knowledge and skills to professional practice and the final step involves checking for improvement by collecting and analyzing data. This cycle needs to be repeated on an ongoing basis to support continuing improvement. (The essence of QI activities).

Barriers to participating in such state of the art CPD education programs include time constraints, the need for coverage while away from the practice and expense involved.

Important principles in CPD include the following.
1. The focus must be relevant to the practicing physician. While external motivators such as MOC will drive learning, optimal results require intrinsic motivators that inspire individuals to pursue education and training on an ongoing basis.
2. Unique needs of procedural specialties need to be addressed as new procedures are constantly being developed. There is need for state of the art programs that support acquisition and maintenance of procedural skills.
3. There is a need for programs that create CPD educators. Communities of CPD educators should be established to facilitate sharing of best practices for broad impact. This will require buy in from organizational leaders, department chairs, professional societies, regulatory bodies and agencies in State and federal government.

Important concepts for learning.
1. Mastery-based, learner centered and blended education and training methods are proven to achieve best outcomes. Sequential training over a period to time is superior to massed training offered through a single intervention.
2. Online programs are effective means of addressing a broad spectrum of cognitive skills. These can be made available at the practice locations and can use case simulations, virtual patients and adaptive training methods. Live education programs that follow online programs can then build on the new knowledge and skills and improve retention.

3. Self-assessments are key to achieving desired goals in CPD. Meaningful assessments need to be data driven and specifically aimed at the knowledge or skill in question.

4. External assessments during and at the end of education and training are essential to ensure optimal outcomes. These assessments should be formative more than summative and provide helpful feedback.

5. The overriding goal of CPD is to progress from proficiency (the desired goal for trainees) through expertise to mastery.

Changes in Health Care.
As healthcare has evolved the importance of interprofessional teamwork has become recognized as a driver of improving patient safety and high quality care. There is now need for educational programs that address interprofessional teamwork. Barriers to success that will need to be overcome include cultural differences between professions, the logistics of convening meetings of different disciplines at the same time, the paucity of sufficient cross-trained faculty for teaching and assessment and inadequate financial support for such programs.

**How These Principles Can Be Applied to CME and AAP**
Planners of educational programs developed by the AAP should consider the following principles:

1. The activity should be focused on a clearly identified gap in practice or performance.
2. Communities of learners with common needs should be identified and encouraged to work together to address the gaps.
3. Sequential learning methods using the principles of the PDSA cycles offer optimal means of improving performance and outcomes.
4. Blended learning techniques enhance mastery and retention of knowledge and skills and should be incorporated into CPD programs.

The need for CPD should focus on the joy of learning and not be driven by external regulations.