למידה/התפתחות אחרי הסמכה ברפואה
Continous Medical Education (CME)
Continuing Professional Development (CPD)

פרופסור שמואל רייס MHPE MD | מנהל אקדמי המרכז לחינוך רפואי ,הפקולטה לרפואה , הדסה והאוניברסיטה העברית בירושלים
יו"ר, היל"ר- החברה הישראלית לחינוך רפואי (של הר"י)
רופא משפחה, שרותי בריאות כללית, גילון ומורן, משגב
פרופסור (אמריטוס), בה"ס לרפואה בגליל של אוניברסיטת בר אילן, צפת (מנהל היחידה לפיתוח סגל וקורס כישורים קליניים) ובה"ס לרפואה ע"ש רפפורט , הטכניון, חיפה (מנהל היחידה לחינוך רפואי)

Medical education

Under-Graduate= Medical School

Graduate = Residency

Post Graduate= Continuous medical Education (CME)

CME differs from the other 2 educational components in that it has generally **not** been **based on an explicit curriculum.** Recently, CME has increasingly focused on addressing **professional practice gaps**, defined as **the difference between what clinicians are currently doing and what they should or could be doing.**

Methods

Care & Teaching Rounds, Consults

Chart discussions

EBM

Stuff ,Radiology, pathology, Pharmacology meetings

Seminars

Teaching of students & Residents

Journal Club, literature monitioring

Conference , workshop, CME attendance

Research

Writing & Publishing

אתגרי המחר

- קצב הלמידה חייב להיות שווה או גדול מקצב השינוי
- GET SMARTER FASTER
- מנהלים אינם יכולים יותר להגיב לשינוי, הם חייבים לחזות אותו ולעבוד אתו.
- לא מדובר בעדכון ידע (בלבד) , אלא בהשלמת מיומנויות קלסיות קריטיות שלא נלמדו באופן מלא או חלקי (תקשורת, התמודדות עם קונפליקט, קידום איכות, עבודת צוות) וברכישת מיומנויות "חדשות" לסביבה המשתנה מאד ולעולם הדיגיטלי. כל זה על בסיס צרכים אישיים או קבוצתיים.

General professional competencies

- dealing with tasks
  - planning and time management
  - information gathering
- dealing with others
  - giving feedback and criticising
  - communicating
  - co-operation
- dealing with oneself
  - self-responsibility
  - self-evaluation
  - self-reflection

New skills emphasized

- learning how to learn
- self-appraisal
- leadership
- team skills
- metacognition
- skills of expression (writing, presenting)
- reflectiveness/reflexiveness…….

Skills for the Digital Age

- Pat-Doc-comp communication (training)
- Communicate through Email , social networks, text messaging, VC
- Info retrieval
- Discuss “news” and digital pt research
- Handle Virtual consultants
- Function in different hierarchical structures
- Readiness and ethos of seeking evaluation and acting upon it

From: **Ascent to the Summit of the CME Pyramid**

JAMA. Published online January 22, 2018. doi:10.1001/jama.2017.19791

Figure Legend:

Proposed CME Outcomes PyramidCME indicates continuing medical education.

Licensure

There is no formal licensing examination. National subject examinations have been introduced by the Forum of Medical School Deans over two decade ago. License is granted by the Ministry of Health to graduates of Israeli medical schools after completion of their internship.

International Medical Graduates (IMGs)

IMGs are required to take a licensing examination before they can seek employment or apply for residency .During the 1990s, about 20,000 IMGs entered the system when one million people immigrated to Israel from the former Soviet Union. About 60% passed a licensing examination and found employment. About 750 IMGs currently pass licensing examinations each year.

Certification for specialty practice

Certification for specialty status is granted by the Israel Scientific Council (ISC) Which is the scientific arm of the Israeli Medical Association. There are 42 specialties including Family Medicine.

Routes to practice

One way is through specialty certification by the Israel Scientific Council. IMG candidates have to take the licensing and many times the specialty board examinations. If their specialty qualifications are not recognized by the ISC, they may be employed by one of the 4 HMO's as a *General Practitioner*(GP) (in 1995 a national Health Insurance Bill decreed that all citizens must be insured in one of 4 HMOs – Health Funds).

Licensed physicians can work privately, e.g. for private companies providing physicians for night and weekend calls._ Licensed physicians can be employed by hospitals as non-qualified specialists.

In Israel, a *General Practitioner* is a licensed physician who has no specialty qualification and is working in Primary Care. A vocationally-trained and Board-certified *Family Physician* (FP) is a licensed physician who went through 4 years of vocational training (VT) and passed the qualifying examinations

Israeli experience

All physicians working for one of the HMOs have 15-20 CME days available to them as part of their contracts. No formal CME for hospital employed physicians

There are no formal CME requirements.

Many programs are lecture-based and many CME activities are either sponsored or initiated by pharmaceutical companies.

Israeli experience

Negative Experiences

Current CME in Israel is not based on needs .

Lack of credible assessment.

Lecture based CME ineffective.

Pharma initiated CME –marketing in disguise.

Lack of impact on clinical outcomes.

Work environment – a major barrier to change.

Few web-based programs.

Lack of faculty development for effective CME.

No explicit professional development plans.

How to improve Local experience

Link CME with needs and performance- move to CPD.

Link CME to changes in practice, work environemnt and outcomes .

Use physician performance assessment (PPA)

Move towards active learning

Pharma support-no strings attached

Invest in capacity : Fac Dev

Use the virtual option whenever appropriate.

Paradigm change: CPD as the normative professional discourse.

שורה תחתונה

CME means updating the knowledge and maintaining the professional competence of practicing physicians.

The emphasis of CME is shifting from just improving knowledge to improving physicians' performance.

Efforts are under way to give CME activities mutual recognition across borders.

CME should be developed and based upon actual and perceived needs.

Adult learning methods should be employed in developing CME.

CME is becoming increasingly available at physicians' workplaces rather than at remote sites.

The content of CME should not be influenced by commercial organizations providing financial support.

Davis, Nancy; Davis, David and Bloch, Ralph(2008)'Continuing medical education: AMEE Education Guide No 35',Medical Teacher,30:7,652 – 666

Continuing professional development (CPD)

is concerned with the acquisition, enhancement and maintenance of knowledge, skills and attitudes by professional practitioners; its broader aims are to enhance professionals' performance and to optimise the outcomes of their practice.

In relation to medicine therefore it can be described as: promoting high quality and up-to-date patient care by ensuring that all clinicians have the learning opportunities to maintain and improve their competence to practice.

topics : Inter- or multiprofessional education(IPE), standards for continuing medical education and the developing role of the regulatory body, quality issues in continuing medical education, recertification and the maintenance of competence, global health and global learning, changes in health care and continuing medical education, learning and change: implications for CLCE and effectiveness of CLCE.

Educational Approaches Acceptable for Continuing Medical Education Activities

Hybrid/blended learning (eg, recorded webinar followed by in-person, small-group problem-solving sessions; live webcast followed by a group quality improvement effort)

Bedside case discussions

Review of records and registry data by a physician or group

Use of art to stimulate reflections about personal wellness

Online case discussion using social media

Procedural training using virtual reality

Role-play simulation to practice communication skills

Interactive game to learn effective practice management

McMahon GT. Evolution of Continuing Medical Education PromotingInnovationThrough Regulatory Alignment 22/1/18 JAMA

Interprofessional education (IPE)& CME

To deliver high-quality team care, teams need to learn together.

In their governance role, accreditors have the opportunity

to promote interprofessional continuing education that improves

team-based care. The ACCME, in collaboration with the Accreditation

Council for Pharmacy Education and the American Nurses

Credentialing Center, created the first joint accreditation system to

facilitate interprofessional continuing education.

McMahon GT. Evolution of Continuing Medical Education PromotingInnovationThrough Regulatory Alignment 22/1/18 JAMA

Simons (1999) has given some examples of several ineffective learning processes within organizations: Not learning from mistakes; no reflection on action; no “double loop learning”; too little (personal) meaningful learning; too much or too little application-oriented learning; too little knowledge about your own learning process (strategy, tactics); lack of self regulation of your learning process; lack of collaborative/cooperative learning; too little learning from experience by means of reflection; too little learning from feedback; too little learning by experimenting with innovations; too little vision and theory-development; not learning from and with customers (patients); not learning with and from colleagues; not learning from experts.

Suggestions for change

1. Culture change: There is a need for changing the social cues and climate for learning in HealthCare organizations, through realizing that organizations can grow through learning.

Culture change can be enhanced by change in structure (that supports **evaluation** of experience, transforming it into knowledge relevant to the organization's core purpose and making it available to the organization) and climate.

Creating a learning organization culture, where every member is engaged in on-the-job team learning, with lateral and vertical transfer of the new knowledge created ,with top management included.

Support and resources for this change need to be adequate and visible, with support to collaboration within and out of the organization /

2. **Enhancing Interprofessional and multiprofessional learning**
3. **Using modern knowledge on CLCE:**Moving from the update model to the competence model and performance model . Utilize need assessment as the basis for planning as well as feedback from outcomes (organizational or patients')
4. **Creating an ethos of Lifelong learning**
5. **Use the principles of work-based learning and medical education:**Examples include: the learning team ,reflective journals, developmental plans and more.

6. **Top management level involvement**
7. **Allocating sufficient time for interaction**
8. **Incentives**
9. **Diversity issues**
10. **ROI:** normally work-based learning is less expansive and also its ROI is usually impressive.
12. **Move towards comprehensive performance assessment and consider revalidation**
13. **Use technology:** Tie EMR to work-based learning and use distance and e-learning. Use self-directed

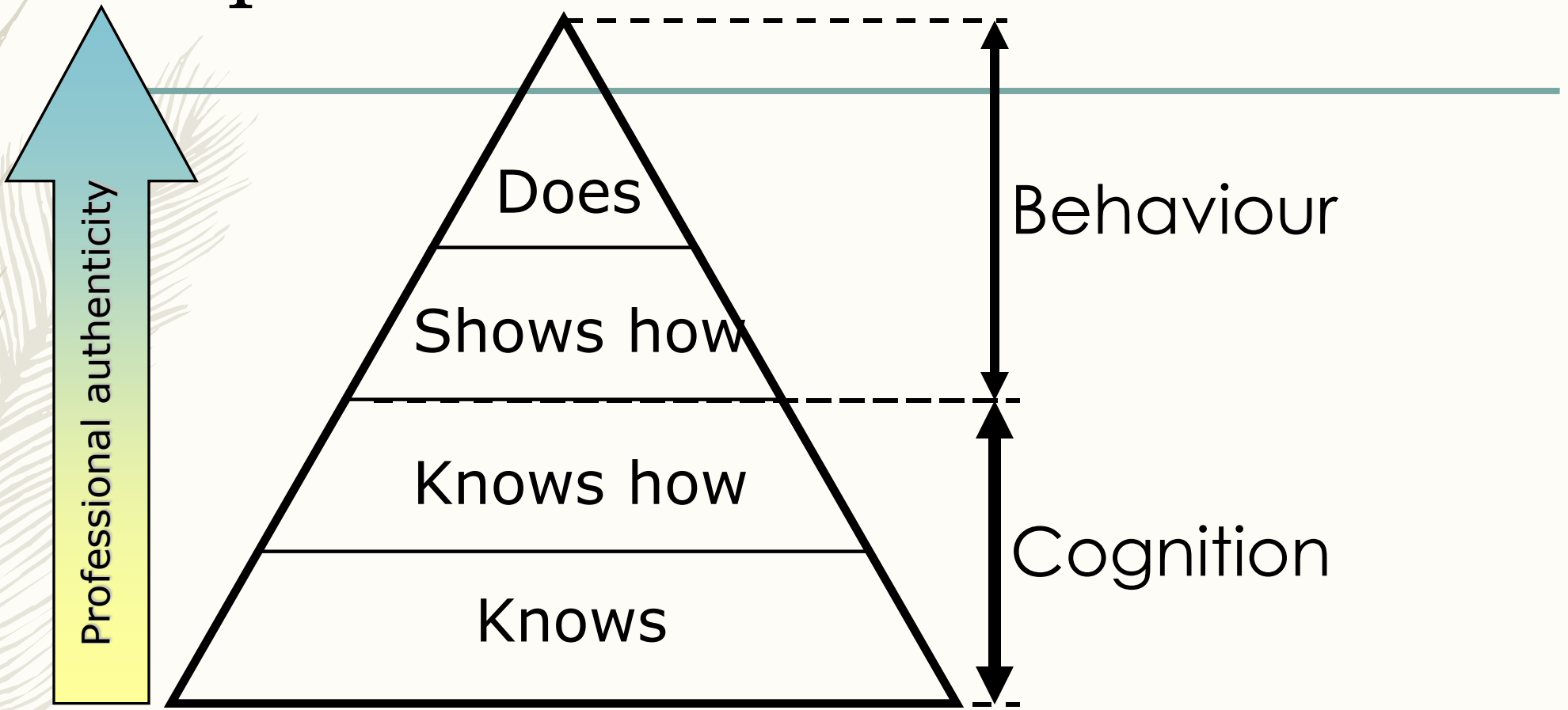
components

- **Maintenance of Competence**
- Performance improvement
- Based on actual and perceived needs
- Adult learning methods
- Work-based learning

מרכיבים

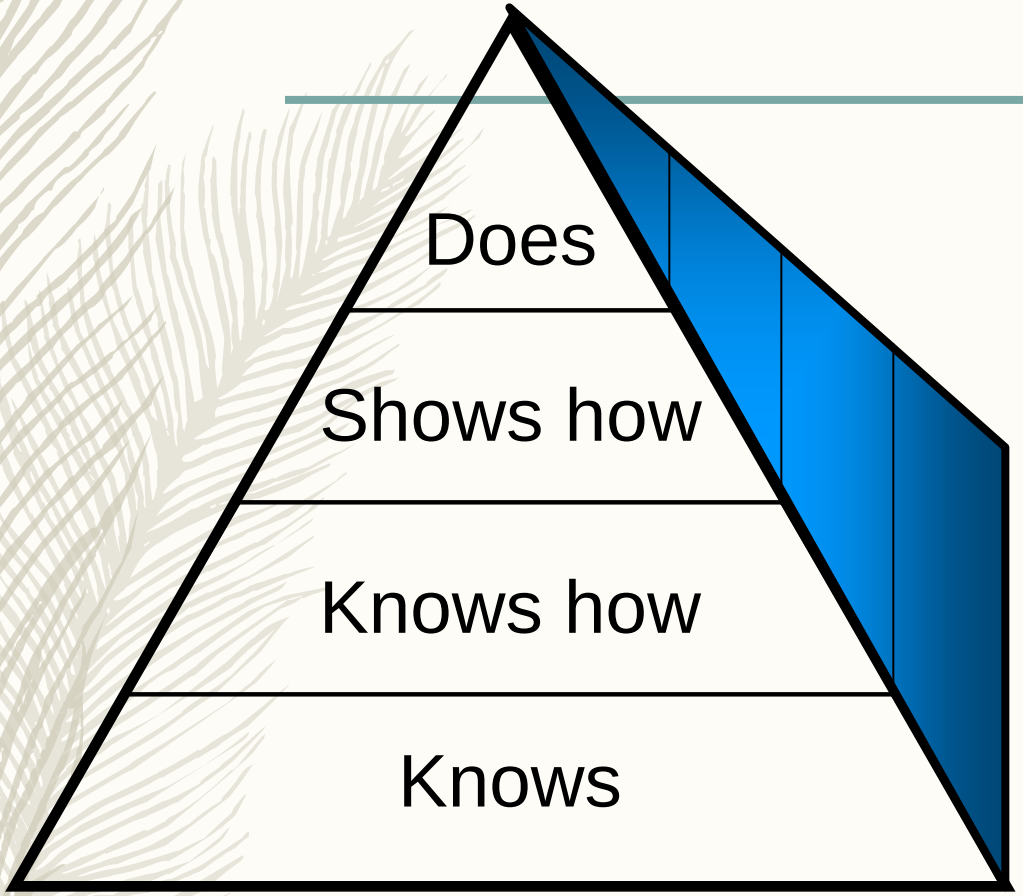
- **תחזוקת כשירות**
- שיפור ביצועים
- על בסיס צרכים
- עקרונות הוראת מבוגרים
- בעבודה

A simple model of competence



Miller GE. The assessment of clinical skills/competence/performance. Academic Medicine (Supplement) 1990; 65: S63-S7.

Measuring the unmeasurable



"Domain specific" skills

"Domain independent" skills

Measuring the immeasurable

- Importance of domain-independent skills
  - If things go wrong in practice, these skills are often involved (Papadakis et 2005; 2008)
  - Success in labour market is associated with these skills (Meng 2006)
  - Practice performance is related to school performance (Padakis et al 2004).

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Competency/outcome categorizations

CanMeds – roles	ACGME competencies
– Medical expert	Medical knowledge
– Communicator	Patient care
– Collaborator	Practice-based learning & improvement
– Manager	Interpersonal and communication skills
– Health advocate	Professionalism
– Scholar	Systems-based practice
– Professional	

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Self assessment

Eva KW, Regehr G. 2005. Self-assessment in the health professions: a reformulation and research agenda. Acad Med 80:S46-54.

מרכיבים

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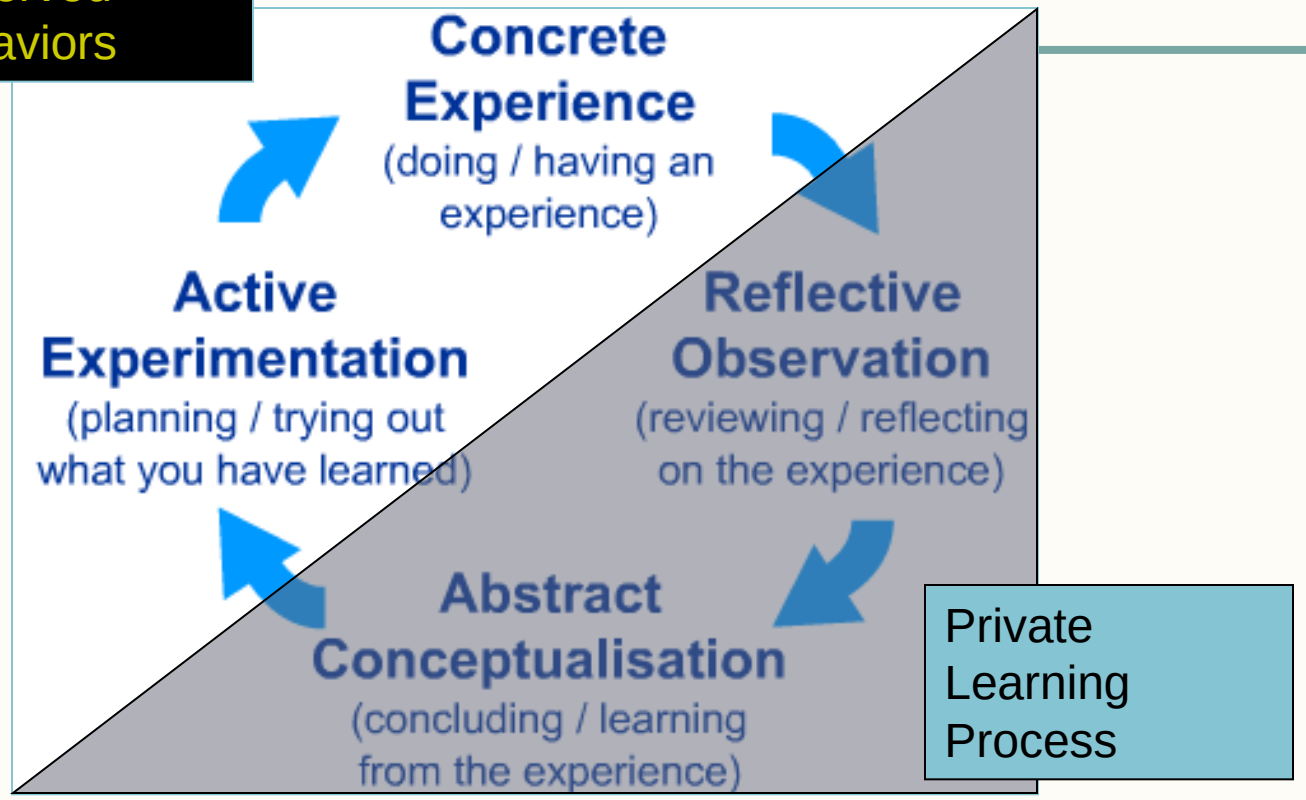
Experiential Learning

Observed Behaviors

Kolb Learning Cycle



Private Learning Process

Kolb D.A. (1984) 'Experiential Learning experience as a source of learning and development', New Jersey: Prentice Hall

מרכיבים

- תחזוקת כשירות
- שיפור ביצועים
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Competency domains for lifelong learning

- Knowing one's practice
- Scanning the environment
- Managing learning in practice
- Raising & answering questions
- Assessing & enhancing practice

Campbell C et al Medical teacher 2010;32:657-662

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סיכום

- סקרנו את התחום, כולל אוצר מלים מעודכן, שיטות וכלים
- אין כמעט נתונים ברמת מהימנות גבוהה לגבי יעילות השיטות, ולכן אולי יש מקום לתכנן את התכנית עם מרכיב הערכתי משמעותי
- מה שחביב עלי: תצפית עמיתיםpeer supervision
- תהליך פיתוח מקצועי אינו לינארי
- איך אנחנו מתייחסים איש לרעהו ומה המשמעות של מה שאנחנו עושים.
- מה קורה בחלק הסמוי, איזה השפעות לא מתוכננות מתרחשות

Six-level model for outcomes-based CME evaluation

Level	Outcome Definition
1 Participation	Attendance
2 Satisfaction	Participant satisfaction
3 Learning	Changes in knowledge, skills or attitude
4 Performance	Changes in practice performance
5 Patient health	Changes in patient health status
6 Population health	Changes in population health status

complications: a surgeon's : Gwande notes on an imperfect science

- We look for medicine to be an orderly field of knowledge and procedure. But it is not. It is an imperfect science, an enterprise of constantly changing knowledge, uncertain information, fallible individuals, and at the same time lives on the line. There is science in what we do… but also habit, intuition and sometimes plain old guessing. The gap between what we know and what we aim for persists. And this gap complicates everything we do….(medicine is) what happens when the simplicities of science come up against the complexities of individual lives.

PROFESSIONAL practice (plato)

- Techne- technical proficiency
- Phronesis- practical wisdom

Cohen R, Amiel GE, Tann M, Shechter A, Weingarten M, Reis S.

Performance Assessment of Community-based Physicians: Evaluation of the Reliability and Validity of a Tool to Determine CME Needs. Acad Med 2002;77: 1247-1254

PAMP II-Station Format

- **Part A: 14 minutes**
  - ~~7 minutes SP- simulated office~~
  - 7 minutes follow-up (3 for note + 4 for SOE)
- **Part B: 10 minutes**
  - 5 minutes SP in simulated office
  - 5 minute follow-up (2 for note + 3 for SOE)
- **Candidates complete all stations in Part A, followed by a break, and then**
- **Candidates complete all stations in Part B**
- **PO's assess candidates in SOE**

Study Population

- 45 GP's low CME utilization –HMO1 *(GP1)*
- 45 GP's active in CME *(GP2)-HMO2*
- 48 FP's active in CME *(FP)-HMO2*
- 13 active in CME physicians from HMO 1 as a control group *(GP3)*
- 151 candidates examined in 11 testing sessions given at 2 sites
- 44 of these were re-examined 4-6 months after a CME intervention (not reported today)

Conclusions

- **The PAMP2 is a formative, competence-based tool that serves a diagnostic purpose in CME and may link assessment to learning.**
- **In spite of some limitations it seems well suited for this purpose.**
- **It may serve in the future as a basis for a comprehensive PPA for PCPs in Israel.**

איך פרקטיקה מקצועית משתנה באופן טבעי?

דרך קהילות מקצועיות (communities of practice)
שעוברים אליהן סוציאליזציה, יש אלמנט של העברה מדור לדור. אבל, זה לא תהליך פסיבי או נטול בקורת, יש כל הזמן רוויזיה דרך דיאלוג ושיח.
יש ממד של שכלול כשורים טכניים מפרוצדורות לתקשורת (כטכנולוגיה) ,אבל הממד המשמעותי יותר הוא שכלול החכמה המעשית שהיא בעיקר סביב קבלת החלטות מוסריות ולכן מהלך החיים של המקצוען הוא סביב יכולתו לפיתוח ושיפור דרך הפרקטיקה שלו!!