New Horizons in Medical Education
An overview

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All Doctors should be teachers

“To teach is to learn twice”

Isocrates
Medical schools have been facing a variety of challenges from society, patients, doctors and students.
These challenges are the result of changes in:

- medical knowledge
- patients’ expectations
- students’ requirements
- healthcare delivery
- doctors’ availability and workload
Changes in Medical knowledge

- exponential growth of medical knowledge (must select and integrate)

- advent of “new” sciences and technologies (eg: communication skills, informatics, EBM, e-learning, complementary and alternative medicine, VLE, simulators).
Changes in patients’ expectation

- patients have become well-informed
- prefer to share in decision making
- expect courteous communication and appropriate attitudes
- have become less tolerant of deficiencies in healthcare delivery
- society expect accountability (evidence based medicine)
Changes in students’ requirements

- higher expectations of both the quality and administration of teaching
- dramatic increase in the number of students admitted to medical schools
- a wider range of social, ethnic and economic backgrounds of students
Changes in healthcare delivery

- style of practice (large group practices, shift systems)
- shift of healthcare delivery towards community settings and away from in-patient practice
- teamwork and multiprofessional approach to healthcare
- less rigid professional boundaries (eg: nurse-practitioner and extended role practitioner)
- changes in the pattern of disease seen in practice
Changes in doctors’ availability and workload

- doctors are less readily available to patients
- senior staff are less readily available to students
How have medical schools and training bodies responded?

By focusing on **product** as opposed to focusing on **process**. The agreed learning outcomes must influence decisions about the curriculum and the teaching and learning and assessment process.
What sort of doctor is needed?

- less knowledge but more abilities
- appropriate attitudes and ethics
- problem-solving skills
- efficient use of information technology
- professional development and lifelong learning
- work as part of a multiprofessional team
- appreciate the emerging role of evidence-based medicine, complementary and alternative medicine.
Medical schools and training bodies have responded by developing:

- new Curricula
- new learning situations
- new tools and aids to learning
- new methods of assessment
- emphasizing staff development
New Curricula

Features common to many modern curricula:

- decrease in the amount of factual knowledge
- early introduction of clinical experience
adoptioning different educational strategies eg:

- outcome-based curriculum
- self-directed learning
- problem-based learning
- task-based learning
- integrated learning
- multiprofessional learning
Incorporating new themes eg:

- communication skills
- ethics and attitudes
- evidence-based medicine
- informatics
- preparing for practice
Cont. “New Curricula” …..

- provision of opportunities for candidates’ choices
- relevant to society
- symbiotic
New Learning Situations

- small group teaching
- distant learning
- ambulatory care
- clinical skills centre
- day surgery units
- primary care settings
- community-based medical education
New Tools and aids to learning

- study guides
- computer-assisted learning programs
- the internet
- videos and self-videoing
- simulators and simulations
New Methods of Assessment

- OSCE (Objective Structured Clinical Exam)
- EMI (Extended Matching Items)
- MEQs (Modified Essay Questions)
- Portfolio assessment
- Work-based assessment
Cognitive Processes in Bloom’s Revised Taxonomy for Knowledge

Miller’s Skills Triangle

create
evaluate
analyse
apply
understand
remember

mastery
does
Shows how
Knows how
Knows what
Staff development is a planned program designed to prepare institutions and faculty members for their various roles and to improve an individual’s knowledge and skills in the areas of teaching, research and administration.
Minimal attention has been paid to personal development, educational leadership, organizational skills, curriculum design and development and the teaching of specific content areas.
The most commonly used staff development formats included:
* workshops
* seminars
* short courses
* sabbaticals
* fellowships
Because of the changing needs and priorities of medical schools and healthcare professionals, alternative formats are being considered including:

* integrated longitudinal programs
* decentralized activities
* peer coaching
* mentoring
* self-directed learning
* computer aided instruction
Programs have also been developed for recognizing and rewarding academic staff performance.
Key issues of particular current importance

- cost effectiveness of approaches to teaching and learning
  (cf. peer assisted learning; faculty ownership and administration of resources)
- best evidence medical education
  (cf. BEME collaboration)
- the best educational strategy
  (cf. flexible learning / adaptive curricula)
- new learning technologies: virtual learning environment
  (cf. IVIMEDS)
References and Further Readings

- BEME collaboration [http://www.bemecollaboration.org](http://www.bemecollaboration.org)
- IVIMEDS [https://www.ivimeds.org](https://www.ivimeds.org)
- Williams RJ, Dunnington GL, Folse JR, 2003; The impact of a program for systemically recognizing and rewarding academic performance. Academic Medicine, 78; 156-166.