Teaching of Evidence-based Medicine in Italian medical schools

A systematic analysis of courses and syllabi

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Disclosure

- GIMBE Foundation carries on educational and training activities on evidence-based practice
- No other conflicts of interest to disclose
Background

- Medical schools worldwide have increasingly included EBM principles in undergraduate curriculum either distributed in different courses or taught in one specific course.
- In Italy complete and systematic data on teaching of EBM in medical schools are lacking.
- A survey conducted by GIMBE Foundation on more than 600 students shows a limited diffusion of EBM contents in medical degree courses.
Background

- In March 2017 GIMBE Foundation assigned a research grant to the Italian Secretariat of Medical Students (SISM) to evaluate teaching of EBM in medical schools and assess the real implementation of syllabi through structured surveys among students.
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Aims

- To evaluate teaching of EBM in medical schools through the analysis of courses and syllabi
- To assess the real implementation of syllabi through structured surveys among students
Methods 1. Identification of medical degree courses

- **Eligibility criteria:**
  - Italian Universities with at least 1 medical degree course

- **Exclusion criteria:**
  - English taught medical degree courses
  - Universities with no SISM registered office
Only English taught medical degree course

No SISM registered office

§Humanitas University

*University of Cagliari, Vita-Salute San Raffaele University (Milan), Campus Bio-medico University (Rome)
MEDICAL DEGREE COURSES

- 59 English taught medical degree courses
- 46 No SISM registered office
- 43 Same course delivered in different campuses
- 41 No syllabi available for the entire medical degree course
- 35
Methods. 2. Information sources

1. Core curriculum of the Italian Council of Medical Deans
2. Core curriculum of Medical Schools
3. Medical Schools’ annual return – Scheda Unica Annuale (SUA)
4. Syllabi of single courses
Methods. 3. Keywords selection

- A high sensitive strategy has been used to minimize false negative results and each document has been searched for the following keywords
  - "medicina basata"
  - evidenza
  - evidenze
  - evidence
  - letteratura
  - prove di efficacia
  - EBM
Results. 1. Core curriculum of the Italian Council of Medical Deans

Section 2. Methodology and Pre-clinical Sciences

• Define criteria to assess the effectiveness of health interventions in primary care, preventive care and healthcare, by implementing evidence-based information

• Discuss relevance and usability of methods to assess the appropriateness of health interventions: EBM, clinical practice guidelines, consensus conferences, outcome studies
Results. 1. Core curriculum of the Italian Council of Medical Deans

Section 2. Methodology and Pre-clinical Sciences
• Discuss how to apply EBM tools to analyze and address true or simulated clinical scenarios: formulating clinical questions, searching evidence, and critical appraising
• Critically discuss principles and methods of EBM for clinical problem solving
Results. 2. Core curriculum of Medical Schools

- Only 4 curricula have been retrieved → excluded from further assessment and analyses
Results. 3. Medical schools’ annual return (SUA)

- Only 19% of medical degree courses have a specific EBM course (8/43)
- There is a variable keywords’ occurrence in SUA of different medical degree courses (mean 3.8 ± SD 2.6, range 1-11)
Results. 3. Medical schools’ annual return (SUA)

Occurrence of keywords

- 1-3: 58%
- 4-6: 30%
- 9-11: 12%
Results. 4. Courses’ syllabi

128 syllabi

- Keywords found: 37%
- No keywords found: 63%
Results. 4. Courses’ syllabi

47 syllabi with EBM content

- Clinical Methodology (n. 17)
- Preventive medicine and public health (n. 11)
- Medical statistics and epidemiology (n. 10)
- Evidence-based Medicine (n. 7)
- Other (n. 2)
Results. 4. Courses’ syllabi

47 syllabi in 43 medical degree courses
Limits

- Tha analysis of documents has been performed through an automated search by a single observator.
- It can not be excluded that analysed documents actually contain EBM-related contents reported with different keywords.
- Only syllabi with high probability of EBM content have been analyzed.
Conclusions

- Although educational aims reported in the core curriculum of the Italian Council of Medical Deans are coherent with EBM core curriculum, SUA and syllabi only occasionally include EBM content
Conclusions

- 8 EBM specific courses identified in SUA and 47 syllabi with EBM content seem to be due more to local initiatives rather than resulting from a systematic introduction of EBM in the Italian undergraduate medical education.
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“In your life you can be robbed of everything, but what you have learned. That’s why you should never stop studying and improving yourself.”

Gioacchino Cartabellootta
MD, living in a small town but thinking big
Alia (PA) 1922 – Palermo 1980