Digital Health - a gap in medical education

The Medical Students’ Perspective

Lina Katharina MOSCH (Berlin)
European Health Policy Director
European Medical Students’ Association (EMSA)
- Association Européenne des Étudiants en Médecine
www.emsa-europe.eu
Content

- The survey
- Important results
- Conclusions
- How to bridge the gap?
The Survey
The survey

Background

- External priority
- Status quo analysis
- Advocacy
The survey

Background
- External priority
- Status quo analysis
- Advocacy

Design
- Mixed Methods
- Cross sectional online survey
- Explanatory approach
The survey

Cross sectional online survey
459 polling returns

- 38 countries
  1. Germany (n = 134)
  2. Portugal (n = 49)
  3. Turkey (n = 39)

- Even distribution between study years 1-6

- Main age group: 18 - 24 years (n = 344, 76%)
The survey

Background
- External priority
- Status quo analysis
- Advocacy

Design
- Mixed Methods
- Explanatory approach
- Cross sectional online survey

Analysis
- Quantitative analysis: R Statistical Software
- Grounded Theory: MAXQDA 2018
Results
Subsets of eHealth: mHealth, teleHealth, Big data

In the future use of mHealth, I see...
- 52% Mainly advantages
- 12% More advantages
- 3% Undecided
- 4% More disadvantages
- 1% Mainly disadvantages
- 3% I feel not informed enough to answer this

In the future use of teleHealth, I see...
- 44% Mainly advantages
- 18% More advantages
- 7% Undecided
- 3% More disadvantages
- 2% Mainly disadvantages
- 1% I feel not informed enough to answer this

In the use of Big Data in future medicine, I see...
- 40% Mainly advantages
- 22% More advantages
- 2% Undecided
- 1% More disadvantages
- 8% Mainly disadvantages
- 1% I feel not informed enough to answer this
40% agree or strongly agree on feeling prepared for working in a digitized healthcare system.

Regarding the statement ...I feel prepared for working in a digitized healthcare system

- Strongly agree: 31%
- Agree: 29%
- Undecided: 20%
- Disagree: 9%
- Strongly disagree: 9%
- No answer: 2%
“It's actually the first time I hear something about e-health, how could I feel prepared for working through it?”

“I don't feel prepared because I didn't receive any training on the matter yet.”

(STRONGLY) DISAGREE
(STRONGLY) AGREE

“My ability to use electronic devices and software in general is good, still it would be nice to be prepared for specific software and situations. In university digitization is not considered at all [...].”

“Teaching on this area in my med ed was very poor, most things i picked up myself [...], there were no specific trainings to prepare doctors for those tasks”
53% of medical students evaluate their eHealth skills as poor or very poor
85% agree or strongly agree to eHealth being more implemented in the medical curriculum.
Why?

1. Preparation for future work environment
2. Keep the curriculum up to date
3. Decrease doubts and fears of eHealth technologies among future doctors
4. Drive innovation processes - improve quality of healthcare in Europe
What courses do medical students request?

Basics / Introduction to eHealth

Data Management

Training with Technologies

Ethics

Communication
Courses

- Basics / Introduction to eHealth
- Specific Courses

Implementation of eHealth into the Medical Curriculum

https://pxhere.com/en/photo/1563507
Courses
- Basics / Introduction to eHealth
- Specific Courses

Implementation of eHealth into the Medical Curriculum

Technologies
- Examples for recent eHealth technologies
- Health Information Systems
- TeleHealth
- mHealth
- Artificial Intelligence
Implementation of eHealth into the Medical Curriculum

Courses
- Basics / Introduction to eHealth
- Specific Courses

Technologies
- Examples for recent eHealth technologies
- Health Information Systems
- TeleHealth
- mHealth
- Artificial Intelligence

Strategy
- Integrated
- New Discipline
- Interprofessional

Conclusions
The gap:

Medical students’ positive attitude towards digital technologies

Lack of practical training and eHealth literacy
→ So far, medical education in Europe does not address medical students’ needs regarding eHealth.
How to bridge the gap?
Bridging the Gap:

I. Implement educational formats on eHealth into the medical curriculum:

(1) Basic / introductory courses
(2) Training with technologies
(3) Communication
(4) Data Management
Bridging the Gap

- Permanent evaluation & re-assessment:
  - Platforms to exchange best practices
  - Evaluation by teachers & students
- top-down & bottom-up approach
  - Allocate resources to development of educational formats on digital health
  - peer teaching
II. Involve all stakeholders:

1. Deans & faculty administrations
2. Teachers & educators
3. Developers & researchers
4. Ethicists & philosophers
5. Healthcare professionals & medical students
Contact

Lina Katharina MOSCH
policy@emsaeurope.eu / linakatharinamosch@gmail.com
European Health Policy Director 2018/2019
European Medical Students’ Association (EMSA)