The young doctor’s opinion on Evidence-based Health Care (EBHC) in Stellenbosch University’s medical curriculum

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Themes:

– Increasing capacity and quality of medical doctors
– Retention of graduates
– Regionally relevant research
Lancet report on training health professionals for the 21\textsuperscript{st} century (\textit{Frenk 2010})

\textit{Competency-based education model}

- Health needs
- Health system
- Competencies
- Outcomes
- Curriculum
- Assessment
Curriculum development: Kern’s six steps

1. Problem identification and general needs assessment

Current approach

Health care problem

Ideal approach

General needs assessment
Approach to situational analysis of medical curriculum

- Fragmented teaching of EBHC
- Not integrated into clinical modules

**Document review**

**AUDIT**
Be familiar with the approach to monitor and evaluate practice

**Enabling competencies**
- Biostatistics
- Epidemiology
- Searching electronic databases
- Philosophy of critical enquiry

**APPLY**
Know the approach to assess applicability and generalisability of research findings in clinical practice

**ASSESS**
Analyze research for validity, reliability, and applicability
Interpret the research findings

**Interviews with lecturers**

**Survey of recent graduates**
Aim of study:

• To gather perspectives of recently qualified doctors regarding the appropriateness of EBHC teaching throughout their undergraduate education.
Methods

• Electronic questionnaire (SUN surveys)
• Quantitative and qualitative questions
• Recent graduates (2004-2010) invited by email
• Poor response rate required incentive
• Quantitative results analysed with SSPS
• Qualitative responses coded with Atlas.ti (emerging themes)
## Results

<table>
<thead>
<tr>
<th>To what extent were the following topics on EBHC covered in the SU MB, ChB curriculum?</th>
<th>Not at all n (%)</th>
<th>Inadequate n (%)</th>
<th>Basic n (%)</th>
<th>Adequate n (%)</th>
<th>Comprehensive n (%)</th>
<th>Total n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifying a personal gap in knowledge</td>
<td>11 (5.0)</td>
<td>30 (13.5)</td>
<td>87 (39.2)</td>
<td>88 (39.6)</td>
<td>6 (2.7)</td>
<td>222 (100)</td>
</tr>
<tr>
<td>Formulating an answerable research question using the PICO process</td>
<td>16 (7.2)</td>
<td>40 (18.1)</td>
<td>87 (39.4)</td>
<td>68 (30.8)</td>
<td>10 (4.5)</td>
<td>221 (100)</td>
</tr>
<tr>
<td>Developing a search strategy based on the PICO question</td>
<td>14 (6.4)</td>
<td>41 (18.7)</td>
<td>77 (35.2)</td>
<td>74 (33.8)</td>
<td>13 (5.9)</td>
<td>219 (100)</td>
</tr>
<tr>
<td>Doing a thorough literature search related to a question you have</td>
<td>3 (1.4)</td>
<td>35 (15.8)</td>
<td>67 (30.3)</td>
<td>91 (41.2)</td>
<td>25 (11.3)</td>
<td>221 (100)</td>
</tr>
<tr>
<td>Distinguishing between different types of studies</td>
<td>1 (0.5)</td>
<td>22 (10.0)</td>
<td>62 (28.1)</td>
<td>97 (43.9)</td>
<td>39 (17.6)</td>
<td>221 (100)</td>
</tr>
<tr>
<td>Identifying study designs relevant to a question</td>
<td>1 (0.5)</td>
<td>29 (13.2)</td>
<td>73 (33.3)</td>
<td>87 (39.7)</td>
<td>29 (13.2)</td>
<td>219 (100)</td>
</tr>
<tr>
<td>Critically appraising the quality of different study designs</td>
<td>1 (0.5)</td>
<td>36 (16.3)</td>
<td>76 (34.4)</td>
<td>90 (40.7)</td>
<td>18 (8.1)</td>
<td>221 (100)</td>
</tr>
<tr>
<td>Interpreting the results of studies</td>
<td>2 (0.9)</td>
<td>32 (14.5)</td>
<td>86 (38.9)</td>
<td>82 (37.1)</td>
<td>19 (8.6)</td>
<td>221 (100)</td>
</tr>
<tr>
<td>Applying the findings to your clinical setting by considering the evidence, your own clinical experience and individual patients</td>
<td>2 (0.9)</td>
<td>28 (12.7)</td>
<td>76 (34.4)</td>
<td>96 (43.4)</td>
<td>19 (8.6)</td>
<td>221 (100)</td>
</tr>
<tr>
<td>Evaluating the process of EBHC on an ongoing basis</td>
<td>1 (0.5)</td>
<td>38 (17.2)</td>
<td>100 (45.2)</td>
<td>72 (32.6)</td>
<td>10 (4.5)</td>
<td>221 (100)</td>
</tr>
</tbody>
</table>
Qualitative results

EBHC Teaching in the medical curriculum
- EBHC skills
- Approach to teaching EBHC
- Challenges experienced in practice

Resources
- formulate questions
- Rural placement
- supervisors' advice
- interpret results
- internet access
- implement change
- inability
- literature
- thinking
- literature searches
- limited knowledge
- you're wrong
- not relevant
- all
- Laziness
- interpret
- conclusive evidence
- impact comfortable
- Senior colleagues
- quality
- free access
- guidelines
- government facilities
- internet resources
- Evidence
- changing fields
- decision making
- extremely expensive
- Financial constraints

EBHC
- changing things
- Poor management
- statistics
- latest research
- not available
- Working without internet
- Resistance
- time consuming
Limitations

• No objective testing of EBHC skills and knowledge

• Quantitative results contradictory with qualitative results
  – Consider using mainly open-ended questions in such surveys
“The hardest conviction to get into the mind of a beginner is that the education upon which he is engaged is not … a medical course, but a life course, for which the work of a few years under teachers is but a preparation.”

Sir William Osler, *The Student of Medicine*
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http://www.cebhc.co.za
www.facebook.com/cebhc

SURMEPI
Stellenbosch University Rural Medical Education Partnership Initiative