Tools to assess the trustworthiness of evidence-based point-of-care resources for health care professionals: A systematic review

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Background

EBM in daily practice

- User-friendly information at the point-of-care:
  - well structured
  - rapidly accessible
  - comprehensive

- Trustworthy information

Need for a standard, validated tool
Aims

• Development of a **valid tool** to assess **trustworthiness** of POC information

• **Systematic review** to identify existing tools

• Examine **validity and reliability** of these tools
Methods

• Systematic search:
  1. Website screening
  2. Medline (Pubmed) till June 2019
  3. Web of Science: reference lists and lists of citing papers for each retrieved paper.

• **Inclusion:** studies, reports, websites, methodologies reported on tools to assess the trustworthiness of health care information for professionals.

• **Exclusion:** information for patients mobile applications
Methods

• Data extraction:
  - general characteristics
  - development process
  - reliability and validity

• Analysis of used criteria – 5 categories:
  (1) author-related information
  (2) evidence-based methodology
  (3) website quality
  (4) website design and usability
  (5) website interactivity
22 websites

**identification**

22 websites

**screening**

18 websites excluded: not a tool for assessment of trustworthiness

**eligibility**

4 websites = 4 tools

**inclusion**

9 papers = 10 tools

3 tools
Results  general characteristics

17 tools

Developed 1997 - 2018

USA, Canada, Europe, Switzerland, Singapore, Iran

7: scoring system

2: reliability & validity

2: only reliability
Content analysis: Prevalence of items in the 17 tools

1. AUTHOR RELATED INFORMATION (4 items)
2. EVIDENCE BASED METHODOLOGY (15 items)
3. WEBSITE QUALITY (8 items)
4. WEBSITE DESIGN AND USABILITY (7 items)
5. WEBSITE INTERACTIVITY (2 items)
## 2. Evidence Based Methodology

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>References to source data or info</td>
<td>6</td>
</tr>
<tr>
<td>Content is current and actual (publication data/updates are...)</td>
<td>9</td>
</tr>
<tr>
<td>Content is based on evidence</td>
<td>4</td>
</tr>
<tr>
<td>Content is (externally) reviewed or peer reviewed</td>
<td>6</td>
</tr>
<tr>
<td>Content is accurate, objective, relevant and transparent</td>
<td>7</td>
</tr>
<tr>
<td>Content is complete (detailed info, coverage of the source, size...)</td>
<td>3</td>
</tr>
<tr>
<td>Content is relevant</td>
<td>2</td>
</tr>
<tr>
<td>Information is designed to support, not replace, the relationship...</td>
<td>2</td>
</tr>
<tr>
<td>Literature search and surveillance</td>
<td>1</td>
</tr>
<tr>
<td>Systematic reviews are preferred above primary studies</td>
<td>1</td>
</tr>
<tr>
<td>Critical appraisal of evidence / transparent quality assessments</td>
<td>1</td>
</tr>
<tr>
<td>Formal grading of evidence</td>
<td>1</td>
</tr>
<tr>
<td>Cite expert opinions</td>
<td>1</td>
</tr>
<tr>
<td>Inclusion and exclusion criteria for studies/data are reported</td>
<td>1</td>
</tr>
<tr>
<td>Possible bias is reported</td>
<td>1</td>
</tr>
</tbody>
</table>
Limits

• Literature search: absence of a common terminology

• No standard risk of bias assessment for each individual tool
Bottom Line

Trustworthiness of Point-of-Care Resources

• 17 different tools
• variety of items
• 2 tools: (+) reliability & validity tests
  (-) lacked some essential criteria

Need for a standard, validated tool
Development of a new tool
THANK YOU!