A Presentation On

Source: https://www.andeal.org/evidence-based-practice

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**Definition**

Evidence-Based Practice (EBP) is the integration of clinical expertise, patient values, and the best research evidence into the decision making process for patient care.

In other words,

It is an approach to decision-making in which the clinician uses the best evidence available, in consultation with the patient, to decide upon the options that best suit the patient.

**Figure 1:** Evidence-based practice by Dollaghan, 2007 [Dollaghan, C (2007). The Handbook for Evidence-Based Practice in Communication Disorders. Maryland: Paul H. Brookes.]
Why is EBP important?

Every 3 patients → About 2 questions
About 30% of physicians’ needs are met during patient visit

(Ely JW, 2000)

5 questions per patient
52% questions → Answered by the medical record or hospital information system
25% questions → Other information resources (textbook or MEDLINE or PubMed)

(Osheroff JA., 1991)

Access to information leads to changes in clinicians’ patient care management decisions.

71 information searches to answer clinical questions

37 (52%) Confirmed management decision
18 (25%) lead to a new therapy or diagnostic test
16 (23%) corrected a previous plan

(Sackett DL, 1998)
Steps in the EBP Process

EBP is the art of integrating the best evidence from epidemiological research with clinical expertise, by means of the following steps:

1. Assess your patient
2. Ask the right question
3. Access the evidence
4. Appraise the evidence
5. Apply the evidence
6. Audit clinical practice

Source: http://www.primaryhealthcare.uct.ac.za/phcd/principles/ebp
Role of Health Informatics in EBP

5 components proposed as the building blocks of an informatics infrastructure for evidence-based practice:

1) standardized terminologies and structures (i.e., terminology models),

2) digital sources of evidence,

3) standards that facilitate health care data exchange among heterogeneous systems,

4) informatics processes that support the acquisition and application of evidence to a specific clinical situation, and

5) informatics competencies.

(Bakken S., 2001)
Table 1: Examples of How Proposed Building Blocks of an Informatics Infrastructure for Evidence-based Practice Support

<table>
<thead>
<tr>
<th>Building Block</th>
<th>Applying Evidence to Practice</th>
<th>Building Evidence from Practice</th>
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<tbody>
<tr>
<td>Standardized terminologies and structures</td>
<td>Provide basis for indexing digital sources of evidence and matching sources to clinician-specific needs</td>
<td>Facilitate the creation of “computable” electronic patient records</td>
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<td>Standards for representation of knowledge facilitate the application of decision support rules</td>
<td>Formalize the documentation of the clinical decision-making process</td>
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<tr>
<td>Digital sources of evidence</td>
<td>Provide access to evidence</td>
<td>“Computable” representations of terminologies support data aggregation and re-use across heterogeneous representations</td>
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<td>Support the communication among computer-based systems to bring together patient data and decision logic</td>
<td>Acquire, monitor, and transform physiologic data in real time.</td>
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<td>Data exchange standards</td>
<td>Facilitate the delivery of tailored health-related messages based on patient-specific data.</td>
<td>Support aggregation of data across time and geography to link process to outcomes</td>
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<td>Informatics processes</td>
<td>Integrate and link heterogeneous sources of evidence</td>
<td>Perform data modeling and aggregation in clinical data repositories</td>
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<td>Present clinician alerts related to potential adverse events</td>
<td>Perform data mining</td>
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<td>Use decision analytic techniques to tailor evidence to specific patients</td>
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<td>Informatics competencies</td>
<td>Retrieve clinically relevant sources of evidence through the use of search tools</td>
<td>Analyze individual practice patterns over time from clinical data repository</td>
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<td>Perform critical analysis of evidence for its applicability to practice</td>
<td>Evaluate effects of evidence-based practice recommendations in the clinical setting</td>
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Major Challenges faced during incorporation of health informatics in EBP

• Development of business models that support cost-effective and efficient development and dissemination of high-quality digital sources of evidence
• Achievement of consensus standards for describing, organizing, obtaining access to, and archiving electronic information sources
• Optimization of information retrieval strategies for clinical relevance
• Integration of the evidence-based practice infrastructure building blocks to support the context-specific retrieval and application of evidence in practice and to facilitate the development of evidence from practice
• Incorporation of principles of evidence-based practice and the supporting informatics tools into clinical processes and organizational structures
• Development of informatics competencies related to evidence-based practice in the health care professional work force

(Bakken S., 2001)
References:


Thank You!