EVIDENCE-BASED LIBRARY AND INFORMATION PRACTICE

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Noraida Hassan
What is EBLIP?

“What Evidence Based Library and Information Practice (EBLIP) seeks to improve library and information services and practice by bringing together the best available evidence and insights derived from working experience, moderated by user needs and preferences” – Booth, 2009
What is EBLIP?

“EBLIP is a way of practising librarianship in a systematic process to achieve more reliable results”—Zuhanariah, Aug. 2011
The Significance of EBP

- INFORMATION OVERLOAD
- POOR QUALITY OF RESEARCH
- RESEARCH PRACTICE GAP
- PRACTICE NOT EVIDENCE-BASED
Does Evidence-Based Practice make better librarians?

- Are we any better off?
- Are we better librarians?
- Can EBP methods assist librarians in becoming better librarians?
- Is EBP a workable model for library practitioners?
Yes!!

- Librarianship is not just a trade; it is a profession

- The evidence tells us what we don’t know

- Therefore we are interested not only in what we do but in how we do it.

- Therefore making a more informed decision is being a better librarian

- Therefore it allows us to focus on what we need to know

- [keep questioning what we know & see if new evidence exists...be open to any new evidence].
Roles we need to play within EBP

- Train colleagues to:
  1) find evidence for practice
  2) find evidence on behalf of clinicians to facilitate their EBP and
  3) provide expert searching and guidance in relation to systematic reviews
Roles we need to play within EBP

- Teach and appraise research literature or search results to support health professionals in their EBP (perhaps as part of collaborative programmes)
Roles we need to play within EBP

- Conduct systematic reviews
- Engage in Evidence Based Library and Information Practice (*critical appraiser, researcher and systematic reviewer and disseminator roles*)
- Design comprehensive searching strategies
EBLIP Process

The 5 As

- Ask a focused question
- Acquire the evidence
- Appraise the studies
- Apply the findings
- Assess the impact

...and your own development
EBLIP Process

• Ask a focused question which is:

i) Clearly defined
ii) Answerable
iii) Addresses important issue in Librarianship
Practical framework for implementation

1) *Know how to ask well-structured questions.*
   - Assign questions to a domain / general area of librarianship (which best fit)

   - Librarianship domains:
     - Reference / Enquiries
     - Education
     - Collections
     - Management
     - Information access & retrieval
     - Marketing / Promotion
# Table 1: Well-built question

<table>
<thead>
<tr>
<th>Focus</th>
<th>Concept</th>
<th>Question root</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population, target group, problem being addressed</td>
<td>Among, in (who, what)</td>
<td>Physicians who search the Internet</td>
</tr>
<tr>
<td>Intervention or exposure</td>
<td>Does (how)</td>
<td>Training from a librarian</td>
</tr>
<tr>
<td>Comparison intervention (if necessary)</td>
<td>Versus (compared to)</td>
<td>No training</td>
</tr>
<tr>
<td>Outcome of interest</td>
<td>Impact (affect)</td>
<td>Time required to find a relevant article</td>
</tr>
</tbody>
</table>
EBLIP Process

The 5 As
• Ask a focused question
• Acquire the evidence
• Appraise the studies
• Apply the findings
• Assess the impact…

…and your own development
EBLIP Process

- Acquire the evidence:
  i) Search the published and unpublished literature
  ii) Best and relevant evidence available
Practical framework for implementation

2) Search the applicable literature

Challenges:
- Lack of research skills
- Quite often, certain nature of questions can be answered by looking for evidence outside of LIS.
EBLIP Process

The 5 As
• Ask a focused question
• Acquire the evidence
• Appraise the studies
• Apply the findings
• Assess the impact…
…and your own development
EBLIP Process

- Appraise the studies

Evaluate the validity (closeness to the truth) and its relevance
Practical framework for implementation

3) Critically appraise what is found

To determine if the current literature is applicable to your situation, and if it is of value.
EBLIP Process

The 5 As
• Ask a focused question
• Acquire the evidence
• Appraise the studies
• Apply the findings
• Assess the impact…
…and your own development
EBLIP Process

• Apply the findings:

Assess the benefits and costs of any decided plan
EBLIP Process

The 5 As
• Ask a focused question
• Acquire the evidence
• Appraise the studies
• Apply the findings
• Assess the impact…
…and your own development
EBLIP Process

• Assess the impact:

Evaluate the effectiveness of the action plan to demonstrate the value of the services provided by the library / librarians.
EBM vs EBLIP

PICO

P Patient or Problem

I Intervention

C Comparison

O Outcome

SPICE

S Setting

E Evaluation

C Comparison

I Intervention

P Perspective
PICO concept

- **P**: A description of the patients
- **I**: An identified intervention of interest
- **C**: An explicit comparison intervention
- **O**: Relevant outcomes
SPICE concept:

- **SETTING**: What is the context of the questions?
- **PERSPECTIVE**: Who are the users / potential users of the service?
- **INTERVENTION**: What is being done to them / for them?
- **COMPARISON**: What are your alternatives?
- **EVALUATION**: How will you measure whether the intervention has succeeded?
A Worked Example

In IMU Library (Setting) would the provision of increased opening hours (Intervention) to meet student demand (Perspective) lead to benefits (Evaluation) when compared with current provision (Comparison)?
A Worked Example

How realistic is twenty-four hour opening? [Same Setting, Intervention and Comparison but with Evaluation from Management Perspective].
Librarianship domains

**EBL Frameworks / Domains**

- **Reference / Enquiries**
  - Providing service and access to information that meets the needs of library users.

- **Information Access & Retrieval**
  - Creating better systems and methods for information retrieval and access

**Details**

- Information specialist

**Information Professional roles**

- Information specialist
Librarianship domains

**EBL Frameworks / Domains**
- Collections
- Education

**Details**
- Building a high-quality collection of print and electronic materials that is useful, cost-effective and meets users needs.
- Finding teaching methods and strategies to educate users about library resources and how to improve their research skills.

**Information Professional roles**
- Instructional Partner
- Teacher
Librarianship domains

**EBL Frameworks / Domains**

*Management*

*Marketing / Promotion*

**Details**

Managing people and resources within an organization

Promoting the profession, the library and its services to both users and non-users

**Information Professional roles**

Program Administrator

Program Administrator
## Examples....

<table>
<thead>
<tr>
<th>Questions from Hypothesis</th>
<th>Revised questions</th>
<th>Domain</th>
<th>Potential Resource</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can we prove that librarians are more effective at answering reference questions and running literature searches than library technicians?</td>
<td>1) In reference transactions, do librarians, as compared to library technicians provide a more complete answer? 2) In literature searching, does a librarian search vs. a library technician search yield higher quality results?</td>
<td>Reference / Enquiries</td>
<td>LISA, Library Literature, CINAHL, Medline</td>
</tr>
<tr>
<td>Is there a way to measure the economic value of the medical library within a hospital?</td>
<td>In hospitals, does having a medical library vs. not having a library impact the hospital’s economic viability?</td>
<td>Management</td>
<td>ABI Inform, Library Literature</td>
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<td>How can we predict the future usability of a print monograph collection in this electronic environment?</td>
<td>In academic libraries, how do electronic subscriptions affect usage of the print monograph collection</td>
<td>Collections</td>
<td>LISA, Library Literature CINAHL</td>
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<td>OPAC vs. library websites/ databases for e-journal/e-book management-why...?</td>
<td>In managing e-journal access and retrieval, is using an OPAC vs. a library website database for indexing those journals are more user-friendly medium?</td>
<td>Information Access &amp; Retrieval</td>
<td>LISA Library Literature CINAHL Medline</td>
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Study designs & methodology
Practical framework for implementation

- Librarians need to explore which types of study designs best answer questions from a particular domain.

- The type of study being conducted will depend upon the questions being studied, its domain and the environment in which the researcher works.

- The same question may be studied in 2 different ways, but equally valid, in 2 different institutions.
# Types of studies

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<tr>
<td>Bibliometrics</td>
<td>Involves measurement of several interrelated aspects of writing &amp; publishing</td>
</tr>
<tr>
<td>Case Report</td>
<td>Descriptions if individual [cases]</td>
</tr>
<tr>
<td>Case Study</td>
<td>An in-depth investigation of a discrete entity (which may be a single setting, subject, collection or event) on the assumption that it is possible to derive knowledge of the wider phenomenon from intensive investigation of a specific instance or case. May include observational, interview, organizational, life history, etc.</td>
</tr>
<tr>
<td>Cohort Studies</td>
<td>An investigation in which a group of individuals (the cohort) is identified and followed prospectively, perhaps for many years.</td>
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# Types of studies

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<td>Interview</td>
<td>Structured (survey interviews): The questions and the answer categories have been predetermined by the interviewer. Unstructured: Neither the exact wording of the questions nor the answers have been predetermined.</td>
</tr>
<tr>
<td>Literature Review</td>
<td>An overview of the literature in the general topic area of the research.</td>
</tr>
<tr>
<td>Randomised Controlled Trial (RCT)</td>
<td>Individuals are randomly allocated to receive or not receive an experimental, preventive, therapeutic, or diagnostic procedure and then followed to determine the effect of the intervention.</td>
</tr>
<tr>
<td>Systematic Review</td>
<td>A review of a particular subject undertaken in such a systematic way that the risk of bias is reduced.</td>
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Problems with EBP Model
It has been recognised that the original 5A model is based around the idea of the clinician, typically the medical doctor as an independent autonomous practitioner - one who, at least to a certain degree, is able to make their own decisions and subsequently to act upon them.

Although Evidence Based Practice is portrayed as a logical sequential process, decision-making in the real world is messy, complex and iterative.
Recently proposed an alternative version of the 5As process

Articulating the Problem
Assembling the Evidence Base
Assessing the Evidence
Agreeing the Actions
Adapting the Implementation

Booth (2011)
Food for thought

- Professional responsibility with regards to Evidence-Based Practice:
  - How do you know what the problem is?
  - Does the solution fit the individual’s context?
  - Does the solution fit the general context?
  - How universal is our solution? If it looks good to us (librarian), does it look good to the users as well?
Sample of researches done

- Understanding the needs of Graduate Biology students: reflections of an EBLIP newbie / by Librarians at Carleton University, Ottawa

[to learn more about Evidence Based Practice while contributing to the research regarding the information needs of graduate biology students].
Sample of researches done

- Who does what? Creating an information seeking profile for Nursing students / by Librarians at Aberystwyth University, UK

[to produce an information seeking behaviour profile for Nursing students based on their personality, self-efficacy and learning style].
Sample of researches done

- A student usage survey as tool for collection management / Librarians team of University of Ghent

[to determine the actual usage of the information resources by the students to improve the library services quality].
Some challenges to EBP

- Time allocation
- Dissemination (within and outside the library)
- Competences (in research and planning)
- Resources
- Supportive management/academician
- Inadequate network infrastructure / computer facilities / IT infrastructure
- Communication / language barrier
- Funding (research and training)
Adoption of EBP in librarianship

- Research methods course
- Integrating EBP in library strategic plans
- Holding international conference
- Continuing education courses for librarians
- Publishing more pervasively on EBL topics
- Setting the requirements for submission of structured abstracts
THINK ABOUT IT AND LET US START SOMEWHERE!!

We should be doing it anyway ;-}
Questions ?