

Evidence Based Research to Evidence Based Practice: A Review of Models and Frameworks from a Health Science Librarian's Perspectives

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Evidence-based History

- Evidence-based philosophies integrate a health professional's experience and knowledge with the best currently available clinical evidence.
- It was introduced as EBM by ACP Journal Club in 1991 and this editorial was the impetus for a series called the *Users' Guides to the Medical Literature* in order to help clinician decide how to incorporate these philosophies in to their daily practice.

Guyatt GH. Evidence-based medicine (editorial). ACP Journal Club suppl 1991;2:A-16.

Guyatt GH. Users/ guides to the medical literature (editorial). JAMA 1993;270(17):2096-7.



EBM & EBP

- Evidence based medicine (EBM) was originally defined as the conscientious, explicit, and judicious use of **current best evidence** in making decisions about the care of individual patients. The practice of evidence based medicine means **integrating individual clinical expertise** with the best available external clinical evidence from **systematic research**. (Sackett Rosenberg 1996)
- Evidence based practice (EBP) is the conscientious use of current best evidence in making decisions about patient care

(Sackett, Straus, Richardson, Rosenberg, & Haynes, 2000).

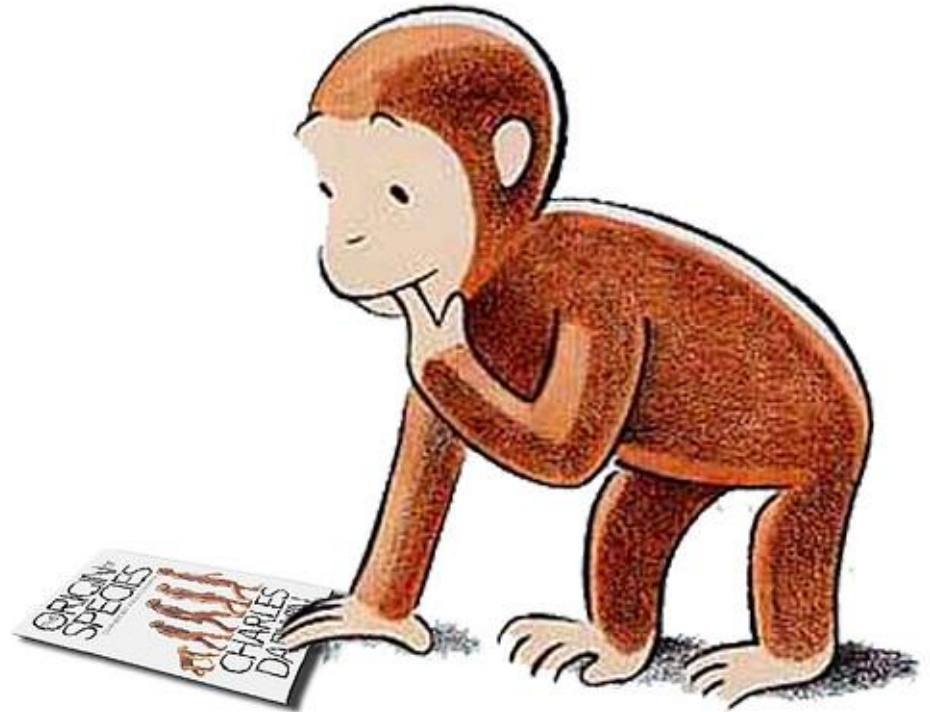
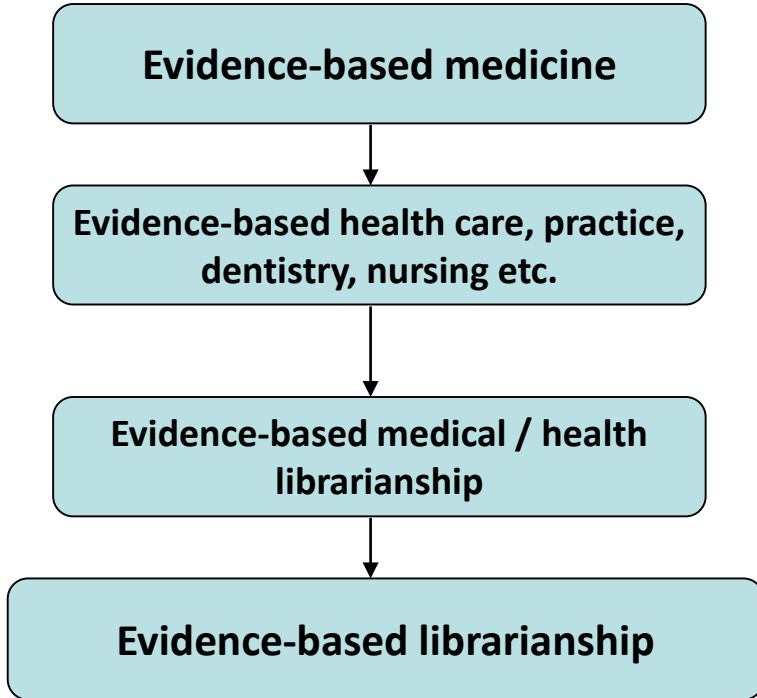


5 Steps to the EBP Process

- **ASK** a Clinical Guiding Question
- **ACQUIRE** the Best Evidence
- **APPRAISE** the evidence
- **APPLY** the Evidence with One's Clinical Expertise
- **ASSESS** the Outcomes of the EBP Practice Decision



Evidence-based Evolution



EBL, EBLIP, EBIP

- EBL – Evidence-Based Librarianship
- EBLIP– Evidence-Based Library and Information Practice
- EBIP – Evidence-Based Information Practice



EBL or EBLIP History

- 1997 Hypothesis article by Jon Eldredge
- 2000 MLA Research Section created an Evidence-Based Librarianship Implementation Committee
- 2000 Eldredge publishes papers that provide the framework for EBL
- 2001 1st Evidence Based Librarianship conference held in Sheffield, UK
- 2004 Booth and Brice book on EBIP
- 2006 EBLIP journal launches



Evidence-based Practice In Librarianship

- Evidence-Based Library and Information Practice (EBLIP) refers to the practice that “promotes the collection, interpretation and integration of valid, important and applicable **user-reported, librarian-observed, and research-derived evidence.**”

(Booth and Brice, 2004)



Why EBL or EBLIP

- Top Skills for Tomorrow's Librarians' Careers 2016 – Library Journal:
 - the ability to determine the data needed to make decisions, understand how to collect, analyze, and gain insight from that data, and present the accompanying narrative to explain it to others.
- The library profession was criticized for being overly focused on practice and lacking research-mindedness.



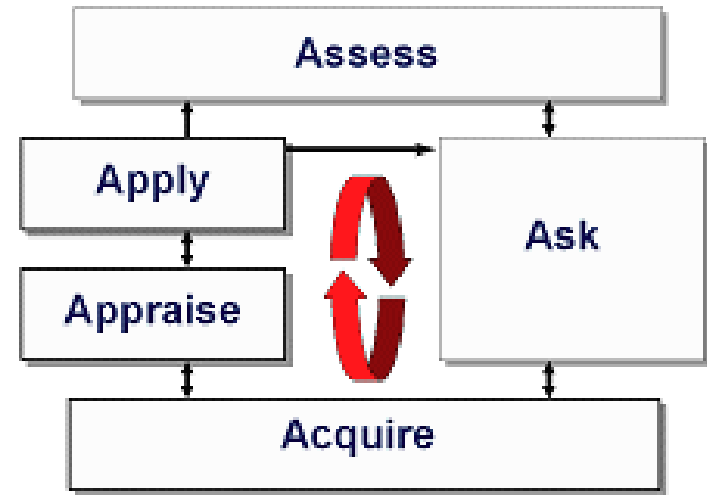
Why EBL or EBLIP

- Improve problem solving & decision-making
- Reduce risk of error
- Demonstrate impact
- Supports best practice policy & processes
- Provide more efficient use of resources
- Sustain more effective services



The 5 As of EBLIP

- Ask - Formulate a focused question
- Acquire - Find the best evidence to help answer that question
- Appraise - Critically appraise what you have found to ensure the quality of the evidence
- Apply what you have learned to your practice
- Assess - Evaluate your performance

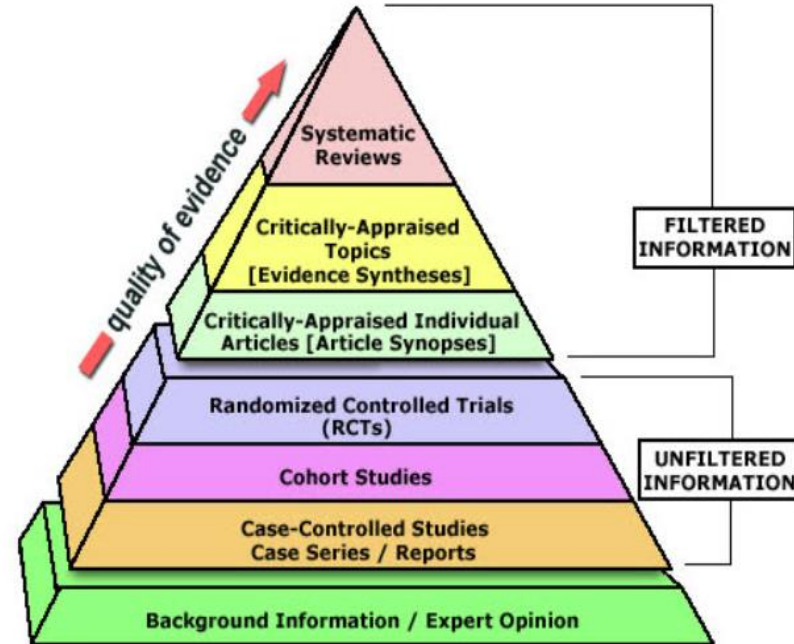


Hayward, 2007



Hierarchy Of Evidence in EBLIP

- Systematic reviews of multiple rigorous research studies
- Systematic reviews of multiple, but less rigorous research studies such as case studies and qualitative methods
- Randomized controlled trials
- Controlled-comparison studies
- Cohort studies
- Descriptive surveys
- Case studies
- Decision analysis
- Qualitative research.
(Eldredge, 2000, p.289)

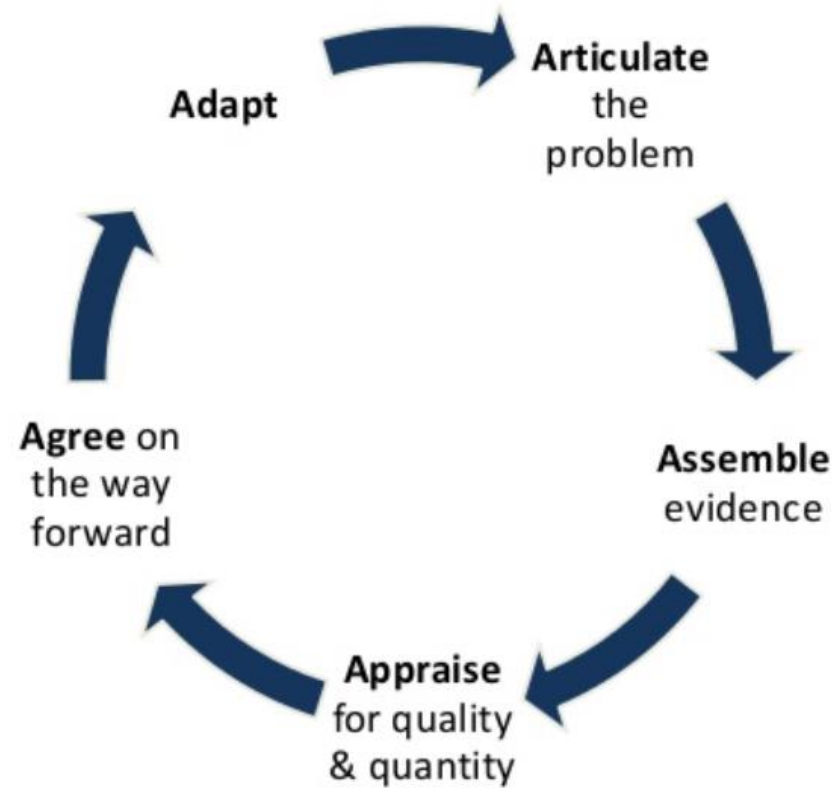


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Evidence Base Practice Revised Model

- Articulate
- Assemble
- Assess
- Agree
- Adapt



(Koufogiannakis & Brettle, 2016, p. 14).



Evidence in EBLIP

Hard Evidence

Published literature
Original research
Analysis of virtual or physical artifacts
Internal statistics
External statistics
Publicly available documents
Blogs and social media
Conference presentations, proceedings and posters

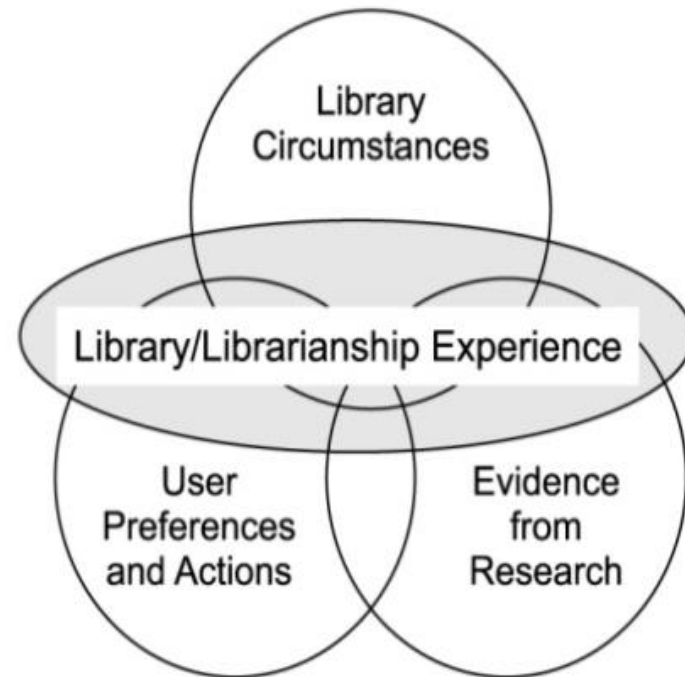
Soft Evidence

Input from internal colleagues
Input from external colleagues
Input from user community
Anecdotes



Bringing the Components Together

- Koufogiannakis's "revised model for EBLIP" is described as one that takes a "holistic approach," "incorporating research evidence as well as local evidence and professional knowledge"



(bayley & mckibbon, 2006)



Librarianship Domains

- **Reference/Enquiries**—providing service and access to information that meets the needs of library users.
- **Education**—finding teaching methods and strategies to educate users about library resources and how to improve their research skills.
- **Collections**—building a high-quality collection of print and electronic materials that is useful, cost-effective and meets the users needs.
- **Management**—managing people and resources within an organization.
- **Information access and retrieval**—**creating** better systems and methods for information retrieval and access.
- **Marketing/Promotion**—promoting the profession, the library and its services to both users and non-users.

(Crumley, E. & Koufogiannakis, D. 2002).



EBP Frameworks -PICOTT

- P - Patient or Problem
- I – Intervention
- C – Comparison
- O – Outcome
- T – Timeframe
- T - Type

(Richardson, Wilson, Nishikawa and Hayward, 1995)

(Schardt, Adams, Owens, Keitz, and Fontelo, 2007).

P – Population: Art History master’s students
I – Intervention: database searching training
C – Comparison: students with no training or students from other Faculties
O – Outcome: Improved bibliographic quality



SPICE Question Structure

Setting	the context (e.g., academic library, Public library)
Population/Perspective	the stakeholder(s) (e.g., graduate students, managers, reference librarians)
Intervention	the service being offered (e.g., chat reference, RefWorks workshops)
Comparison	
Evaluation	the measure used to determine change/success/impact (e.g., usage statistics, course grade)



ECLIPSE

- E – Expectation
 - C - Client Group
 - L – Location
 - I – Impact
 - P – Professionals
 - SE – Service
- E – Expectation: Improve customer satisfaction
 - C - Client group: Library users who request ILLs
 - L – Location: Library
 - I – Impact: Improve the ILL service
 - P – Professionals: ILL staff
 - SE – Service: ILL



PIPOH & PESICO

- PIPOH For Oncology (ADAPTE Collaboration, 2009)
 - What is appropriate training for fieldwork students working on the library's issue or circulation desk?
 - P – Population: Library users
 - I – Intervention: Training
 - P – Professionals: Fieldwork students
 - O – Outcome:
 - S – Setting: Issue or circulation desk
- PESICO (Schlosser and O'Neil-Pirozzi 2006) for fluency disorders and speech language pathology
 - P – Population: New university students
 - E – Environment: Library
 - S – Stakeholders: Library staff and student instructors
 - I – Intervention: Virtual library tour
 - C – Comparison: Physical library tour
 - O – Outcome: Improved..... understanding of library services



Combining All Frameworks

- P – Population or problem
- I – Intervention or exposure
- C – Comparison
- O – Outcome
- C – Context or environment or setting
- P – Professionals
- R – Research – incorporating type of question and type of study design
- R – Results
- S – Stakeholder or perspective or potential users
- T – Timeframe or duration



Challenges & Barriers

- Time
- Funding
- Mentoring/ Training
- Availability
- Accessibility of Evidence
- Organizational Culture
- Personality



EBLIP at the Organization Level

- Organizational dynamics
 - Decision making dynamics
 - Interconnected and interdependent cultural orientations
 - EBP Culture of Valuing
 - A culture of valuing
 - A culture of being
 - A culture of learning
 - A culture of leading
- (Gillespie et al., 2016, para. 19).



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