

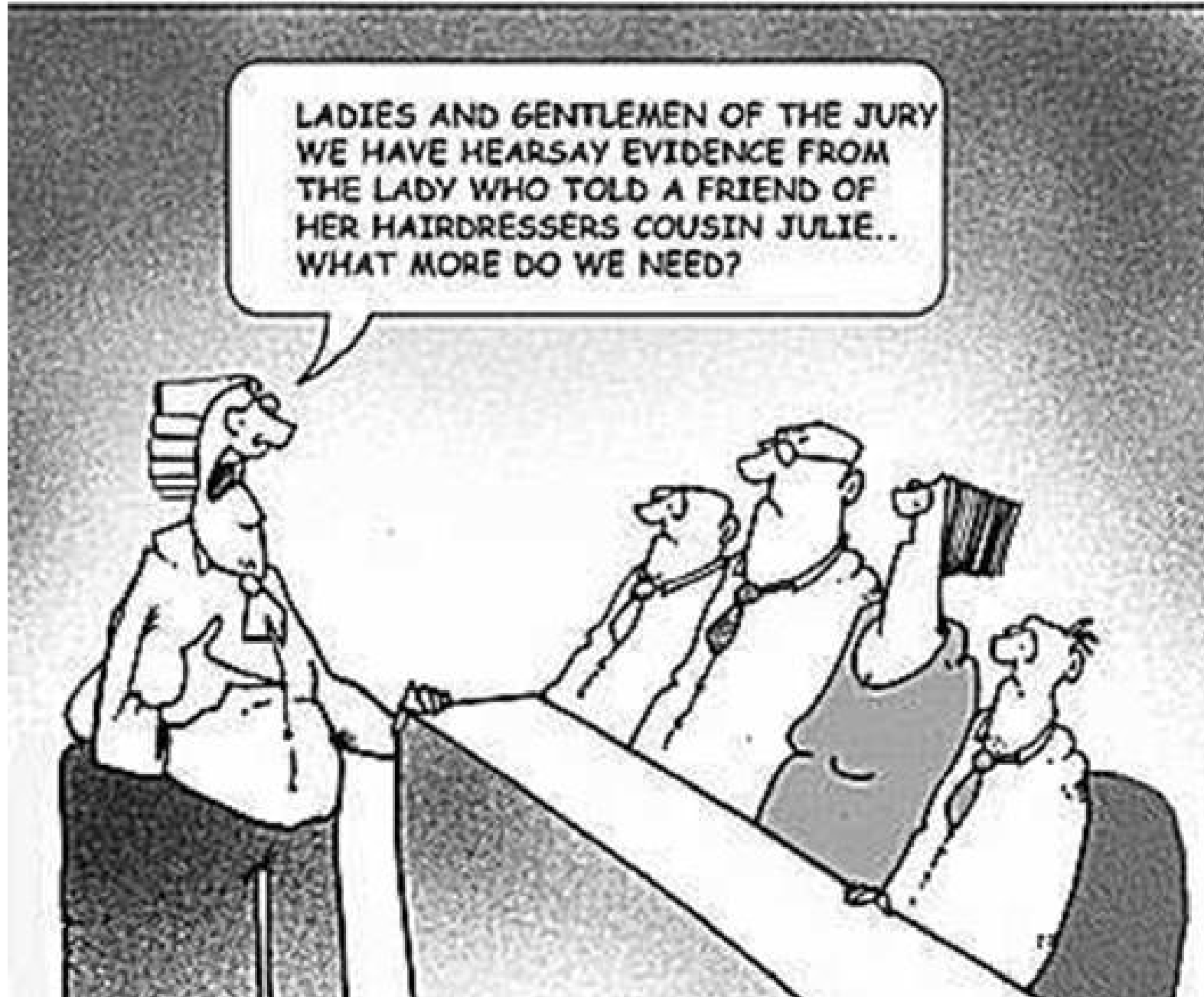
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**Is Evidence Based Librarianship (EBL) just an attractive theory, or can practicing librarians make it work in real life?**

The development and evaluation  
of a journal club for librarians

Nicola Bexon

## Is this evidence-based?!



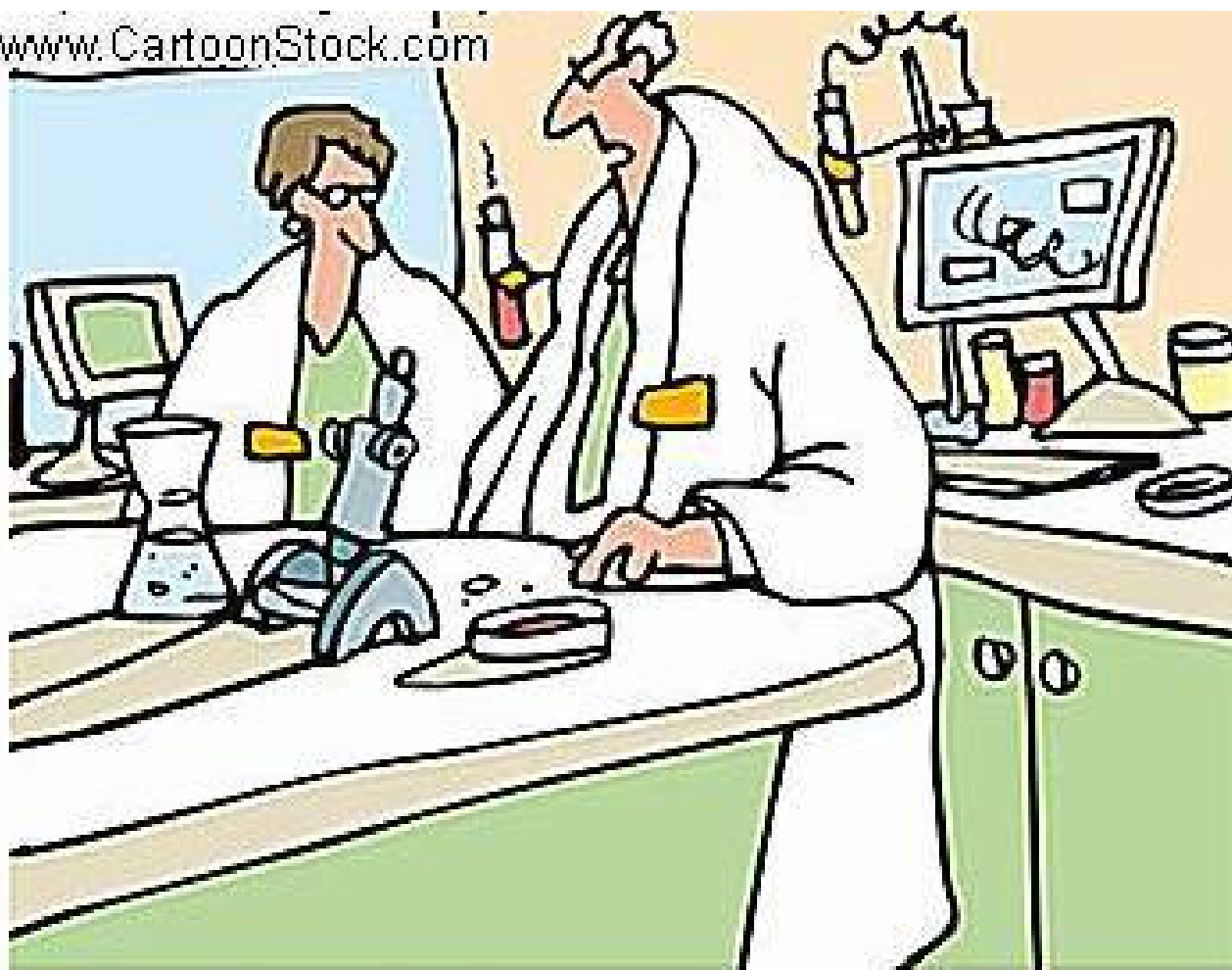
# Background: evidence based practice

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- The five steps of evidence-based practice that originated within healthcare:
  - Identifying a question
  - Finding the best available evidence to answer this question
  - Critically appraising the evidence
  - Applying the results to a specific population
  - Evaluating the outcome

These could all be applied to librarianship

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- Librarians are usually skilled in the first two steps, but what about the others?



**Not all research studies are of good quality!**

**How can we tell the good from the bad?**

**“Do a double-blind test. Give the new drug to rich patients and a placebo to the poor. No sense getting their hopes up. They couldn’t afford it even if it works.”**

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- In order to be evidence-based, librarians need to be able to apply the results from **rigorous research studies** to professional practice
  - One tool available to assist in this is critical appraisal, used within the context of a journal club.

# Background: literature

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- Studies in **healthcare** have shown that journal clubs can be effective for teaching critical appraisal skills, increasing knowledge and using research literature in practice: Ebbert 2001, Goodfellow 2004, Khan 1999, Phillips 2004
- Could not find any research-based studies on use of journal clubs for developing appraisal skills for **librarians**
  - Some descriptive articles about setting up clubs: Cameron 2004, Grant 2003, Koufogiannakis 2003, Doney 2003, Tomlin 1996

# Objective

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- to establish a journal club for health librarians that would develop critical appraisal skills, increase awareness of library-related research, and assist in the application of research to library practice.



# Methods

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- The journal club idea commonly used in evidence based medicine was taken and adapted for use in evidence based librarianship
- Meetings held once a month
- 14 health librarians in Oxford invited
- One librarian prepares a question and scenario, chooses a relevant research paper and selects an appropriate appraisal checklist (e.g. CriSTAL). This librarian acts as facilitator and takes notes.

# Methods

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- Librarians encouraged to identify questions from their own practice
- Research paper is critically appraised by the group, using the checklist
- Appraisals take between 1 and 1.5 hours
- A critically appraised topic (CAT) is prepared and disseminated to all group members after the meeting

## Methods: Evaluative survey

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- 6 months after first meeting of journal club, a questionnaire was sent to participating librarians.
- This survey aimed to discover whether attendance at the journal club had helped the librarian to identify questions, read more library-related literature, improve their critical appraisal skills and apply the appraised evidence to their own practice.

# Results

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- 6 journal club meetings have been held to date, each appraising one research paper. Topics include:
  - family practitioners use of the internet for clinical information
  - the awareness and use of search filters by librarians
  - whether impact factors are a useful measure of the quality of medical journals

# Results

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- A total of 7 librarians have participated in two or more meetings - the highest attendance for any meeting was 7, the lowest was 3
- The 6 meetings were each facilitated by a different librarian
- All 6 appraisals have been recorded as a CAT and made available to the group.

**TITLE:** There is a strong correlation between impact factors and physicians ratings of journal quality

**Bottom Line:** For the 9 medical journals selected, a strong correlation was found between impact factor and physicians ratings of journal quality, which was significant ( $p < 0.001$ ).

**Focused Question:** Are impact factors useful as a measure of the quality of medical journals?

**Citation:** *Impact factor: a valid measure of journal quality?* Journal of the Medical Library Association 2003, 91(1) pp42-46

**Search terms:** impact factors, evaluation, quality, journals

### **Summary of the aim and methods of the study:**

- The authors sought to examine whether impact factor is a valid measure of journal quality as rated by clinical practitioners and researchers.
- The sample was 416 physicians specialising in internal medicine in USA - 208 randomly selected (not clear how) practitioners from the American Medical Association's (AMA) master list, and 208 researchers from the alumni directory, randomly selected using a random number generator.....etc

## **Main Results:**

- Response rate was good - 66% overall, 58% from practitioner group and 74% from research group. 135 people did not respond and no explanation or breakdown of group was given.
- There were no significant differences between respondents and non-respondents in terms of age, graduation year or subspecialty training
- There was a strong correlation between impact factor and physicians ratings of journal quality, which was significant  $p < 0.001$ .
- .....etc

## **Comments:**

- Good rationale and justification for conducting the study, as there is clearly a need for information on the value of impact factors.
- Good response rate
- No sample size calculation – so not sure how they came up with the figure of 416 physicians
- Not given much information about the total population of physicians, so difficult to know if the selected population for this survey was significantly different from other physicians
- .....etc

# Results of the survey

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- 5/6 participating librarians returned the survey
- 7/7 non-participating librarians returned the question about barriers to attending journal clubs



Attending the journal club has helped me to:	<b>Strongly agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>identify &amp; formulate questions</b>	1	2	2	0	0
<b>search library-related databases research</b>	0	3	2	0	0
<b>read more library-related research</b>	2	1	2	0	0
<b>develop critical appraisal skills</b>	4	1	0	0	0
<b>write a CAT summary</b>	4	1	0	0	0
<b>apply the results to my own practice</b>	0	2	3	0	0
<b>influence the decision-making of colleagues</b>	0	0	5	0	0

Attending the journal club has helped me to:	<b>Strongly agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>identify &amp; formulate questions</b>	1	2	2	0	0
<b>search library-related databases research</b>	0	3	2	0	0
<b>read more library-related research</b>	2	1	2	0	0
<b>develop critical appraisal skills</b>	4	1	0	0	0
<b>write a CAT summary</b>	4	1	0	0	0
<b>apply the results to my own practice</b>	0	2	3	0	0
<b>influence the decision-making of colleagues</b>	0	0	5	0	0

<b>Table 2</b>	<b>Strongly agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>Diversity of job roles means that research selected is not always relevant to individuals</b>	0	2	1	2	0
<b>It is difficult to find research relevant to my library or information practice</b>	0	1	1	2	1
<b>I always search for and identify a research paper first, then create a scenario and question</b>	2	2	1	0	0
<b>Applying the results of the appraisal to my own practice is difficult</b>	0	1	3	1	0
<b>Attending the journal club has made me more critical when reading research studies</b>	3	2	0	0	0

# Comments

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- *“Although I agree with the statement, I don't think that it is a bad thing - it's interesting to know what is relevant to other health care librarians/information specialists” (Agree)*
- *“I have learnt something from each session. I may not use it now, but can store it for future use.” (Disagree)*

<b>Table 2</b>	<b>Strongly agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>Diversity of job roles means that research selected is not always relevant to individuals</b>	0	2	1	2	0
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<b>I always search for and identify a research paper first, then create a scenario and question</b>	2	2	1	0	0
<b>Applying the results of the appraisal to my own practice is difficult</b>	0	1	3	1	0
<b>Attending the journal club has made me more critical when reading research studies</b>	3	2	0	0	0

# Comments

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- *“Before searching I always chose a topic that I’d like to find out more about, then I search and identify an article, then write the scenario – I find this works best for me” (Strongly agree)*

<b>Table 2</b>	<b>Strongly agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly disagree</b>
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<b>Attending the journal club has made me more critical when reading research studies</b>	3	2	0	0	0

# Comments

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- *“Sometimes there are appraisals where I cannot apply the results to my own work, however, generally I think there is always something (even something small) that I have learnt from a study that I can take back to my own library.....”*  
(Disagree)
- *“I am currently focussing on web/content development and literature searching, and I don’t think these have been covered, unless I missed them. However, the general skills I do use (e.g. critical appraisal skills)”* (Agree)



<b>Table 2</b>	<b>Strongly agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly disagree</b>
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<b>Attending the journal club has made me more critical when reading research studies</b>	3	2	0	0	0

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- *“I don’t just accept everything I read just because it appears in an academic journal”*

## Had participants applied any of the results from the journal club appraisals directly to their own practice?

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- Yes – 2 librarians. No - 3 librarians.
- A librarian answering Yes, made this comment:  
*“Information and findings from several of the appraised studies have been used when writing summary articles/search narratives/content development strategies”*
- A comment from a librarian answering No:  
*“Haven't really had time (fire-fighting right now!), but I look forward to applying results in the future - am keeping the CATs all together in a CPD/ideas file”*

## Barriers to librarians attending journal clubs

<b>Barrier</b>	<b>Number of times chosen (participating librarians)</b>	<b>Number of times chosen (non-participating librarians)</b>
<b>No time</b>	5	5
<b>Staff-shortages</b>	4	3
<b>Availability of journal clubs</b>	3	0
<b>No management support</b>	3	1
<b>Lack of knowledge about journal clubs</b>	3	0
<b>Applying evidence too difficult</b>	1	0
<b>No interest</b>	0	1
<b>No appropriate facilities</b>	0	0

# Summary

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Attendance at this journal club helped librarians to:

- develop their critical appraisal skills
- be more critical when reading research studies
- create a written record in the form of a CAT

and to a lesser extent:

- read more library-related research
- identify research questions

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- Most librarians did not always follow the steps of evidence-based practice in order – that is, they tended to find research that interested them first, then created a scenario and question to fit this
  - Diversity of job roles leading to selection of papers that were sometimes not relevant to all members, was not seen as a limiting factor in the development of a journal club.

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- Applying evidence to library practice can be difficult, but 2 librarians had been able to apply some aspects of the journal club appraisals directly to their own practice.
  - The librarians who had not yet applied any results directly were storing their CATs for later use or waiting for research papers more related to their own practice.
  - The most frequently cited barriers to attending a journal club were lack of time and staff-shortages at the workplace – this was reinforced by the librarians who did not attend any of the meetings.

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- In answer to the question - *is EBL just an attractive theory, or can practicing librarians make it work in real life?* – EBL has been shown to work in real life library practice
  - The development of a journal club as a tool for assisting in the practice of EBL, was an effective method for health librarians and information scientists based in the Oxford area.
  - Limitations: small survey sample, self-assessment



# Future issues

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- Librarians still need support to identify questions from, and apply research to, their own practice
  - One possible way of helping librarians to identify and remember questions is to encourage them to record questions as they arise, which can be answered at a later stage.
- Development of critical appraisal skills and the application of research must be seen as a benefit to the whole library or information service
  - Management support
  - Protected time
- More published evaluations of journal clubs to help assess their effectiveness in developing evidence based librarianship skills

**Thanks for  
listening!**

