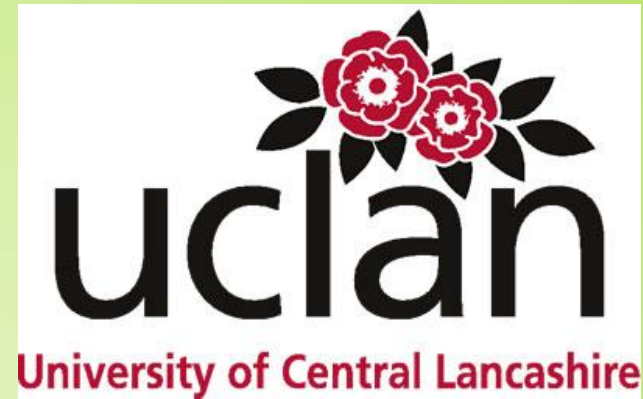


Dr Hazel Roddam



**Speech and Language Therapy
as an evidence-based
profession:**

what are the skills, tools and
resources that we need?

Workshop outline

1. Definitions of EBP
2. Acknowledging inherent challenges
3. Identifying opportunities
4. Skills development
5. Evidence-based tools and resources
6. Implications for practice
7. Personal action planning

Definitions of EBP

1. Drivers for EBP

- International agendas
- Clinical practice

2. Sackett's model

- Three pillars
- Five steps

3. Redefining EBP

- Practitioner perceptions of EBP
- Clinical Mindlines

What is the EBP agenda?

- Political
- Professional
- Clinical
 - Things are not working
 - Facing unfamiliar territory

Skeat & Roddam, 2010

Who is EBP for?

*“It is not expected that all clinicians will
be **research-active**,*

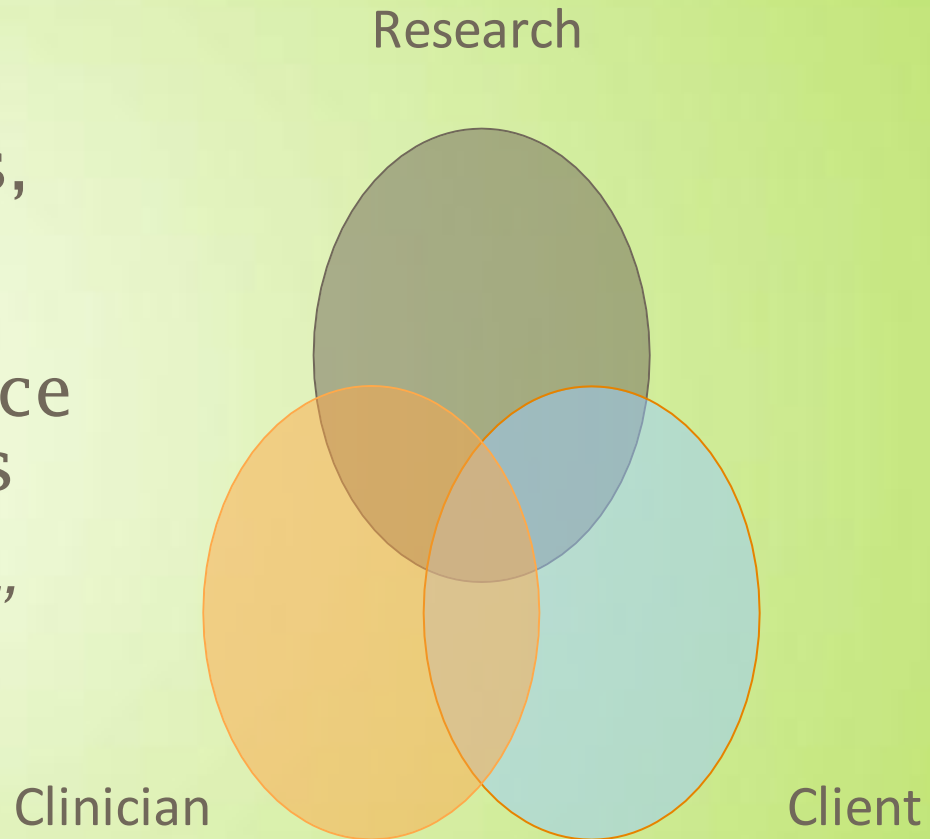
*but it is expected that all clinicians will be
active users of research”*

Supporting Research and Development in the NHS
A.Culyer, 1994

Most used definition of EBP

“The conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients”

Sackett et al 1997



5 steps model of EBP

1. Frame a clinically-focused question
2. Search for the best quality evidence
3. Appraise the evidence
4. Implement changes - if appropriate
5. Evaluate effectiveness of practice

Sackett et al 1997

What does research offer?

- Answers specific questions
- Rigour
- ‘greatest strength lies in the fact that it removes bias’

Reilly 2004

Implications of research

- ***Does our practice work?***
 - Treatment efficacy
 - Treatment effectiveness
- ***How well does it work?***
 - Statistical significance
 - Clinical significance
- ***Is it worthwhile?***
 - Clinical effectiveness
 - Cost effectiveness
 - Client perceptions

How confident do you feel to judge the research evidence?



So is EBP embedded?

EBP has achieved nothing like the degree of acceptance by practising clinicians that it set out to achieve

- 30-40% of patients do not receive care according to current scientific standards *Miles et al 2007*
- 20-25% of care provided is not needed or harmful *Eccles et al 2005*
- Only 10-20% of interventions achieve change and many programmes result in no change at all *Treweek 2005*

Differences in health professions?

- Medics → Colleagues

Upton & Upton 2006

- Nurses → Nursing colleagues

McCaughan et al 2005

- Physiotherapists → Initial training.

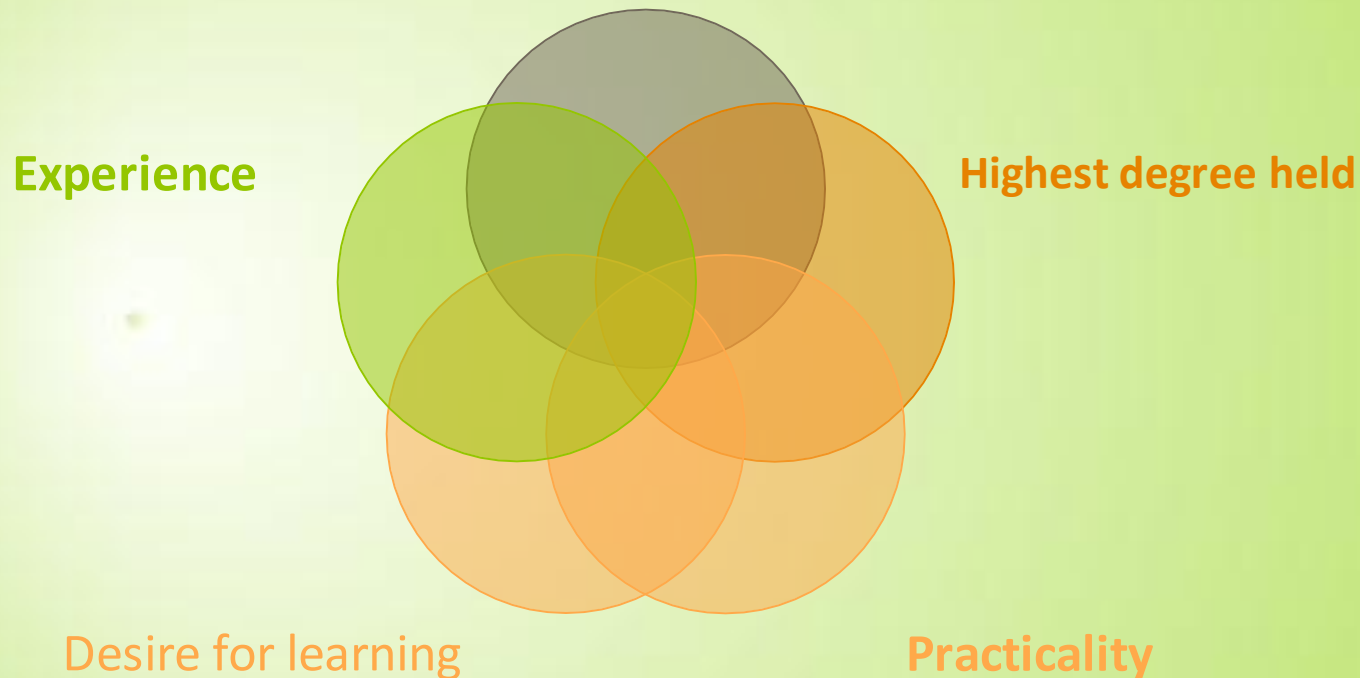
Turner & Whitfield 1999

- SLTs → Colleagues & internet sources.

Nail-Chiwetalu & Bernstein-Ratner 2007

Exposure to research & EBP

Exposure to research and EBP during training



Bridges et al 2007;
Zipoli & Kennedy 2005;
Aaron 2004; Turner 2001

Redefining EBP

*It may be more helpful
to consider EBP as a way of thinking,
rather than as a body of “facts”*

McCurtin & Roddam, 2012

Clinical mindlines

Clinicians ...

- Are aware of formal sources of evidence
- Don't use those sources whilst in practice
- Don't ignore them
- Acquire new information from wide range of sources
- Balance many competing roles in decision-making
- Don't consciously apply deductive logic
- Rely on pattern recognition
- Co-construct mindlines within communities of practice

Knowledge in practice

“The messy reality of practice”

“Knowledge-in-practice-in-context”

John Gabbay and Andree le May, 2011

Reflect on your own practice



Support for EBP

- Please think about **one/more aspects of your clinical practice where you feel most confident that you are working in an Evidence-Based Practice approach**. This may be with one individual client/patient, or it may be a specific aspect of your caseload/job description.
- **What are the factors that make you feel more confident that your practice with these clients/patients and in these settings is evidence-based?**
- Please list below all the supportive factors that you think may be relevant.

Good practice examples

- Context
- Process
- Outcomes
- Reflection

Challenges

- What is EBP – and what is it not?
- Complexity of our practice
- Limitations of the evidence base
- Is our routine clinical practice evidence-based?
- Is our education evidence-based?
- Is the training we deliver to others evidence-based?

What is *not* EBP?

- Anecdotes /testimonials

*“The plural of anecdotes is not evidence”
(Reilly 2010)*

- Media headlines
- Cost savings
- Expert opinion
- Intuition
- Pseudo-science

What is pseudo-science?

- Lack of critical evaluation
- Un-testable/not open to testing
- Belief-based
- Unjustified, over-generalised or dramatic claims
- Authority figures

What's wrong with pseudo-science?

- Risk of harm to patients
- Waste of client's and clinician's time
-
- Not effective
- Undermines the scientific basis of the profession



Be 'smart' in your reading!



Effective reading habits

- Establish a reading routine
- Selective reading, including pre-appraised sources
- Use a structured checklist
- Discuss with colleagues
- Save & organise your notes

What counts as evidence?

- **Highest level of rigour** Systematic Reviews, Meta-analyses, well designed randomised controlled studies
- Well designed controlled study without randomisation
- Well designed non-experimental studies
- Expert committee report, conference, consensus, case series
- **Lowest level of rigour** Clinical experience of respected authorities, single cases

Mismatch in research agendas

- Under-representation in clinical trials of certain populations of patients, including those with severe problems or co-morbidities (Elman 2006)
- Only a small proportion of articles pertaining to the efficacy of treatments used for individuals with developmental disabilities (Koenig & Gunter 2005)

Opportunities

- **Creating a supportive context for EBP**
 - Equipping ourselves with EBP tools and resources
 - Building evidence-based policies for practice
 - Influence of leadership role
 - Valuing good practice
 - Support for innovative practice
- **Making the evidence work for us**
 - Building EBP networks
 - Service user involvement
 - Developing evidence-based clinical resources

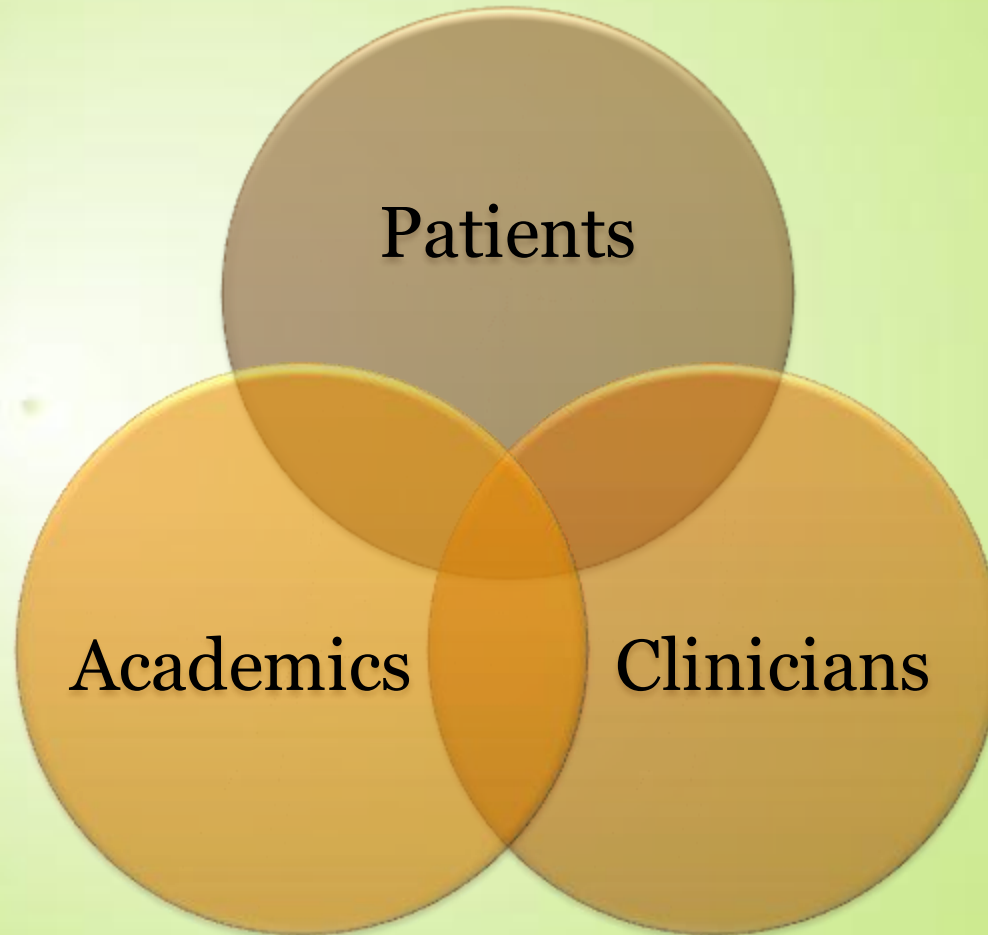
What are “Journal Clubs”?

- Learn new skills of searching & appraising
- Learn about research designs
- Gain confidence
- Focus on clinical questions
- Network with other colleagues
- Time to think!

Sharing good practice in EBP

- Identifying good practice
- Documenting outcomes
- Listening to the patient/client voice
- Developing collaborative partnerships

Building effective partnerships



Skills & training gaps



Research awareness

- Low levels of understanding about EBP itself among allied health professionals (Upton and Upton 2006)
- Research related competencies (Kajermo et al 2000, Haynes 2002 McCluskey 2003, Kahmi 2006)
- Lack of skills to conduct computerised searches, and low levels of knowledge about electronic databases (Rappolt & Tassone 2002, McCluskey 2003)
- SLTs report research as difficult to read and interpret (Pennington 2001, O'Connor & Pettigrew 2009)

Clinician experience

Recency of training, including higher degree involving exposure to EBP and research, predicted better attitudes to EBP

Zipoli & Kennedy 2005 - SLTs

Jette et al 2003, Turner 2001 - Physiotherapists

Bennett et al 2003)- Occupational Therapists

Clinician attitudes

The most experienced practitioners expressed the least favourable attitudes about EBP, age and years since graduation predicting the tendency to use EBP

Aaron 2004

Clinician confidence

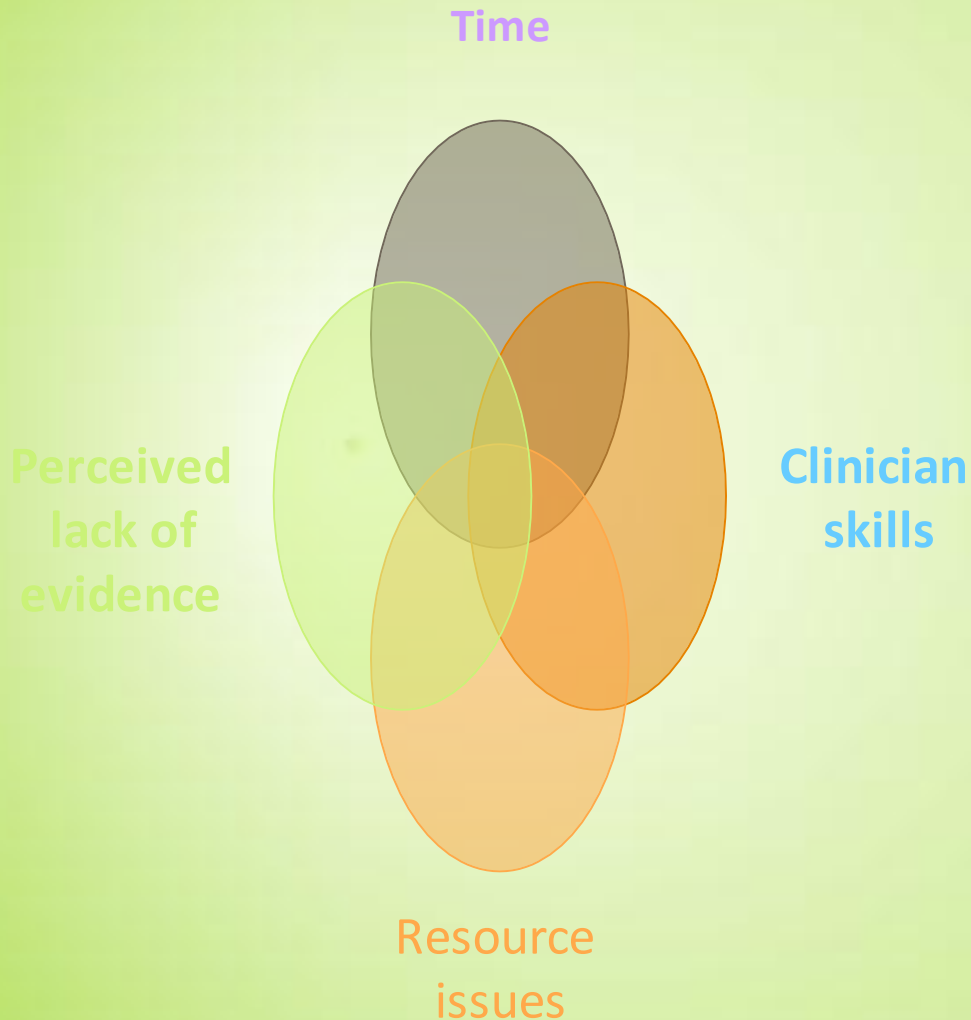
Familiarity with, and confidence in search strategies, use of databases and critical appraisal tend to be associated with younger therapists with fewer years since graduation

Jette et al 2003

Tools and resources



Impact of resources



- Large caseloads
- Difficulty accessing journals *McCluskey 2003*
- High staff turnover, staff shortages *Curtin & Jaramazovic 2001*
- Organizational structures *Upton & Upton 2006*

But most of all.....**Time**

- 30 years - 20,000 articles *Bernstein-Ratner 2006*
- Only 8% were happy with the time they had to do this *Pollock et al 2000*
- Lack of, *McCluskey 2003, Bennett et al 2003, Curtin & Jaramazovic 2001*
- To keep abreast GP have to read on average 19 articles a day, 365 days of the year *Sackett et al 1997*

Implications

*“The first step is to become
reflective and critical reviewers
of our own practice”*

Professor Pam Enderby, 2010

Future challenges

If we are committed to embedding EBP, we need to recognise the implications for

- the training we receive
- our practice behaviour
- the training we provide to others

Personal actions

***“EBP requires change
to habits, routines,
and sometimes
personal and philosophical
preferences and ideals”***

Skeat & Roddam 2010

Strategies to support EBP

- Taking time to reflect
- Developing effective personal reading routines
- Maximising the use of pre-appraised sources
- Learning and practising EBP skills
- Communicating with colleagues
- Involving clients in practice
- Evaluating the impact of changes in clinical practice

The challenges of applying international research evidence

1. Don't assume there is a lack of research evidence before you have looked carefully
2. Don't let colleagues use "lack of research" as a defence for not making any efforts to keep their practice updated
3. Consider a working group to undertake a strategic mapping of the existing research evidence that is validated for practice in Denmark – possibly ALF could take the lead on this
 - See Reilly, Douglas & Oates "*Evidence Based Practice in Speech Pathology*" 2004 Whurr Publishers: this presents an overview of the evidence base – and the gaps – for each clinical area

The challenges of applying international research evidence

4. Translation into Danish of Evidence-Based Clinical Guidelines +/- Systematic Reviews for selected clinical areas - possibly ALF could take the lead on this, with additional advice on adoption of local protocols for the national service delivery context

5. Development of Evidence-Based Clinical Guidelines for selected clinical areas, to include “professional consensus” levels of evidence where no other validated evidence yet exists

See UK's National Institute for Health and care Excellence (NICE)

<http://guidance.nice.org.uk/CG>

The challenges of applying international research evidence

6. Replication studies of published international clinical research studies to generate validated data for Danish service delivery for

a) effectiveness of intervention approaches

b) validation of standardised assessment tools

recommended model of collaborative partnership

working between clinical teams and university

researchers

7. Capturing good practice exemplars using systematic service evaluation approaches or research designs – ie Practice-Based Evidence(PBE)

recommended model of collaborative partnership

working between clinical teams and university

researchers

Creating Practice-Based Evidence (PBE)

This is an easy-read book directed at busy therapists in clinical practice – it is not a textbook aimed at university students. •

It covers practical guidance on collecting and using routine clinical outcomes data to demonstrate effective practice

“Creating Practice-based Evidence: a Guide for SLTs”

Corinne Dobinson and Yvonne Wren

2013 J& R Press Ltd

Systematic reporting of cases from clinical practice

The CARE Guidelines set out quality criteria for how clinical cases can be reported and disseminated to make a valuable contribution to the collective research evidence base

<http://www.ncbi.nlm.nih.gov/pubmed/24155002>



Useful References

- Bury & Mead, 1998, Evidence-Based Healthcare: A Practical Guide for Therapists. Oxford: Butterworth-Heinemann
- Dopson, Fitzgerald, Ferlie, Gabbay & Locock, 2002, No magic targets! Changing clinical practice to become more evidence-based. Health Care Management Review 27(3): 35-47
- Estabrooks, Floyd, Scott-Findlay, O'Leary & Gushta, 2003, Individual determinants of research utilization: a systematic review. Journal of Advanced Nursing 43 (5): 506-520
- Gabbay, J. and Le May, A. 2011 Practice-Based evidence for healthcare: Clinical Mindlines
- 2013 Roddam, H. and Skeat, J. (Eds) *Implementering af evidensbaseret praksis - i det logopaediske arbejdsfelt*. Copenhagen: Hogrefe Psykologisk Forlag (ISBN: 978-87-7135-015-9)

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- Spek, B, Wieringa-de Waard, M., Lucas, C. and van Dijk, N. (2013) Teaching evidence-based practice (EBP) to speech-language therapy students: are students competent and confident EBP users? *International Journal of Language & Communication Disorders* Volume 48, Issue 4, pages 444-452
- Vallino-Napoli & Reilly, 2004, Evidence-based health care: A survey of speech pathology practice. *Advances in Speech and Language Pathology* 6 (2): 107-112
- Zipoli & Kennedy, 2005, Evidence-based practice among speech-language pathologists: Attitudes, utilisation and barriers. *American Journal of Speech-Language Pathology* 14: 208-220

Additional sources and links from workshop

- ASHA – list of Guidelines and Systematic Reviews

<http://www.asha.org/members/ebp/compendium/>

- Cochrane Library of systematic reviews

<http://www.thecochranelibrary.com/view/o/index.html>

- Speech Bite – free access to research publications

<http://speechbite.com/>

Additional sources and links from workshop

- CASP Critical Appraisal checklists for reading research papers

<http://www.casp-uk.net/#!/casp-tools-checklists/c18f8>

- CASP On-line tutorials for searching electronic databases and appraising research papers

<http://www.casp-uk.net/#!/e-learning/cd70>