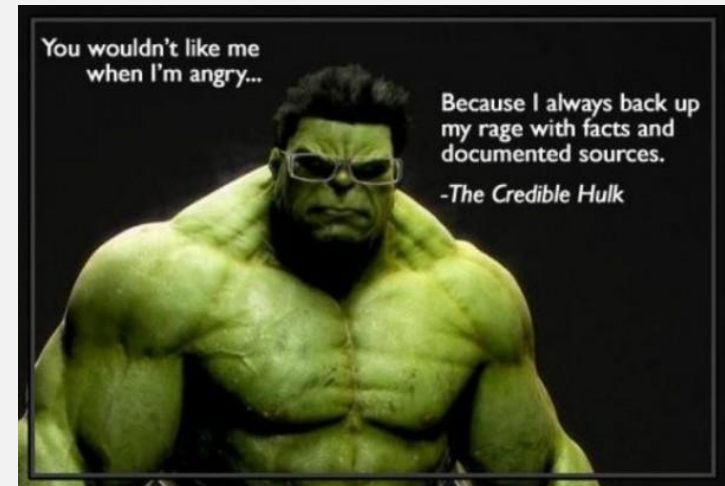


Examples of gaps between evidence and practice

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Overview of session

- Thinking about what we 'know' is evidence based practice
- Does a clinical trial paradigm fit dietetics?
- Is evidence based practice in crisis?
- Is working without evidence still evidence based practice?

Commonly held beliefs in practice in UK (possibly wider)

- With patients who are overweight aim for a clinical relevant weight loss of 5-10% of their starting weight
- In tube fed patients feed continuous with a minimum of a 4 hour break to allow stomach to empty and reduce bacterial build up

Are these common practice in your country?

Do you think they are evidence based?

Commonly held beliefs in practice in UK (possibly wider)

- With patients who are overweight aim for a clinical relevant weight loss of 5-10% of their starting weight
- In tube fed patients feed continuous with a minimum of a 4 hour break to allow stomach to empty and reduce bacterial build up

First look at the Clinical Guidelines...

Are clinical guidelines evidence?



NICE CG42 – Obesity (2006, modified May 2014)

- Realistic targets for weight loss, usually:
 - aim to lose 5-10% of original weight
- No evidence to support statement directly
- SIGN (2010) supports the same recommendation with good quality evidence for asthma (lung function especially), blood lipids and possible blood pressure
- Data less clear in over 65 years of age! (Bales & Buhr, 2008 J Am Med Dir Assoc. 9: 302-312)

Observation

- Many medications used in the management of obesity achieved 5-10% weight loss
- A search of Medline (Sept, 2014)
- Revealed over 3000 clinical trials in adults related to weight management
- 423 were related to pharmaceutical preparations only 225 related to nutrition or diet without pharmaceuticals
- A potential distortion of the evidence?

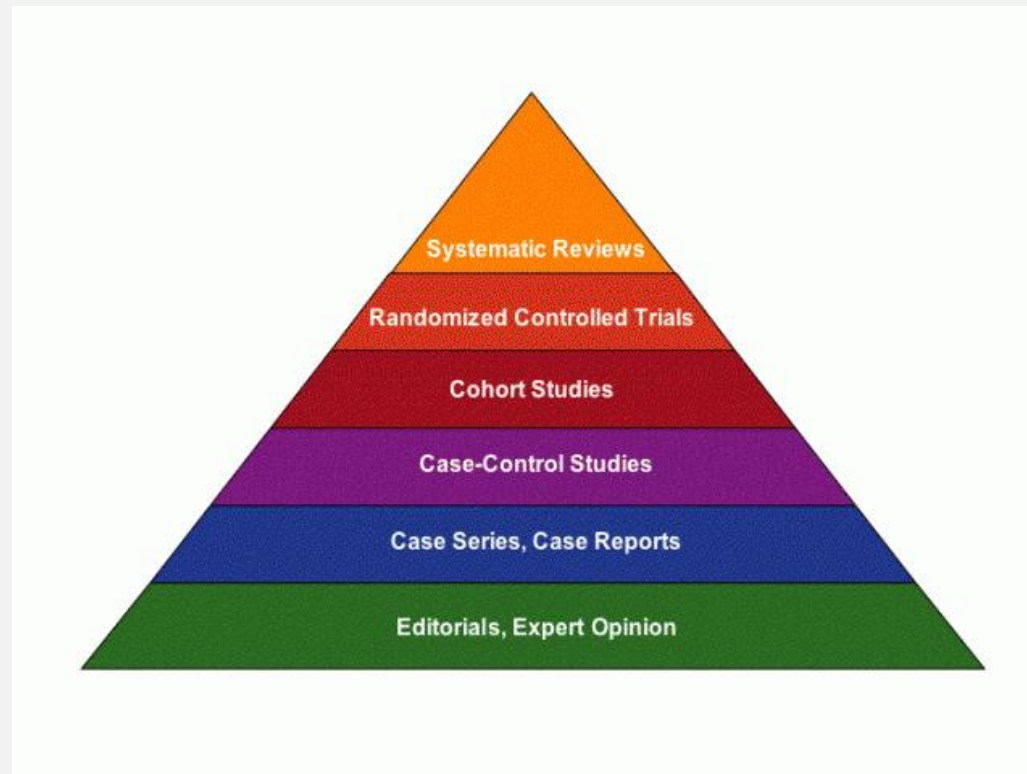
NICE CG32- Nutrition Support (2006, with evidence update 2013)

- One study reported reduced hospital stay for 16hr vs 24hr feeding ($p=0.04$)
- Conclusions
 - Bolus feeding as effective as continuous, choice should be dictated by patient preference, convenience and drug regimen
 - In intensive care feeding should be continuously over 16-24 hours. If insulin is needed, it is safe and more practical to continuously feed over 24 hours.

So practice may be based on what is learnt

- Some practice links to guidelines
- Some learnt and may not have changed
- Not all guidelines evidence based, some are best practice or consensus derived
- If following a clinical trial model, is that open to bias from those who do the most studies?

The hierarchy of evidence – the right model for dietetics?

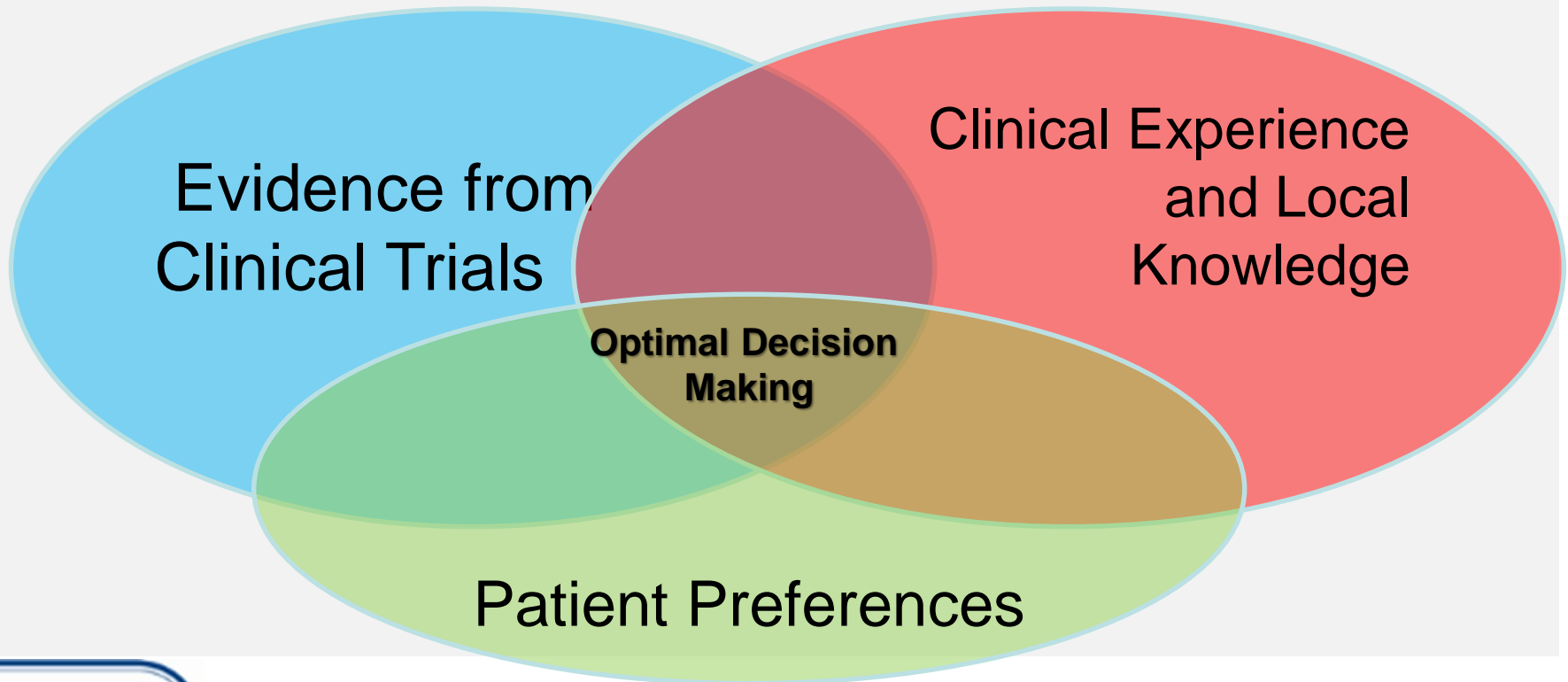


Critique of the hierarchy model

- It is reductionist it places too high a value on quantitative data
- It is at risk of bias from those who commission research
- Lack of a patient voice
- Not enough understanding of processes, 'a lack of why'

Optimal Decision Making..

...A step forward from Evidence Based Practice?



Are the gaps in the evidence a problem?

The key is perhaps how we behave and clinically think as practitioners?



Characteristic of Novice, Competent and Expert Practitioners

- Novice is characterised by (now → B placement):
 - Rigid adherence to taught rules or plans
 - Little situational perception
 - No discretionary judgment
- Competent practitioner (within successful C placement)
 - Able to cope with 'crowdedness' and pressure
 - Sees actions partly in terms of bigger picture and longer term effects
 - Follows standardised and routinized procedures
- The Expert practitioner (12 months + after qualifying)
 - No longer relies on rules, guidelines and maxims
 - Has intuitive grasp of situations based on deep tacit understanding
 - Uses analytic approach only in novel situations or when problems occur

The Risk of Blindly following the Evidence

- Not working with the patients needs
- Not fully deducing the need of the individual
- Not problem solving, considering aspects of risk and benefit
- Expecting interventions to work, without fully evaluating our practice

What if there is no or very little evidence?



Phytobezoar

- A concretion formed in the stomach or intestine and composed chiefly of undigested vegetable fibre – Merriam-Webster Dictionary
- A rare but known condition, gastric bezoar are the most typical and have been associated with persimmon ingestion



Treatment of phytobezoars

- Endoscopic fragmentation, surgery or dissolution
- Report 2002 using cola (Ladas et al.)
- In 2012 Ladas et al. reported a systematic review of cases and cases series
- This does not fit the classical EBP model
- It is individualised, based on clinical judgment and reviewing its effects

Is the EBM fit for what Evidence Based Nutrition requires?

- Evidence Based Medicine tends to use interventions where something is added and compared to a passive placebo
- Nutrition tends to increase/decrease nutrients
- When using food manipulation is less precise
- Does nutrition research directly infer causality or moderation of risk
- Do we need a new way of thinking about evidence and communicating?

Blumberg et al. (2010) Nutrition Reviews. 68(8): 478-484

Kerry et al. (2012) Journal of Evaluation in Clinical Practice. 18: 1006-1012

Where are we?

Yes, there are lots of dietetic papers in the literature

But, do they provide the answer for my clinical case today?

Probably not and it probably shouldn't

- To paraphrase Greenhalgh, Howick and Maskrey (2014) BMJ 248: g3725
- Evidence based practice should be 'practiced knowledgably and compassionately. Could accommodate basic scientific principles; the subtleties of clinical judgment and the patients' clinical and personal idiosyncrasies.'

Dietetics is complex and defies the reductionist model of clinical trials

- Evidence and research is needed
- Clinical trial model is a poor way of assessing effect in multimorbidity
- Clinical trials are poor at assessing effect of synergistic interventions in practice
- The volume material and restrictions of inclusion/exclusion criteria make much of the evidence unusable in practice

A new model for EBD?

Evidence Based Dietetics

- Focus on individualised evidence that patients, dietitians and other healthcare professional can understand
- Characterised by expert judgment of building a treatment plan, not mechanistic rule following
- Shares decision making with patients and carers
- Builds upon a strong dietitian-patient relationship
- In public health looks to develop and apply community level for evidence based practice

Adapted from:

Greenhalgh, Howick and Maskrey (2014) BMJ 248: g3725

We still need evidence

- Need to be more rigorous in our evaluation of our own practice
- Need to develop appropriate methodologies for the types of cases we see and the interventions we use
- Need to build a 'critical mass' of information generating dietitians (research and practicing)

Conclusion

- Yes there is lots of evidence for dietetics in the literature
- How much is usable in clinical practice
- Evidence based practice and research needs to be focused at solving problems of individuals
- Perhaps new models of research need to be developed and promoted?