Evidence-Based Policy Research

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What is evidence-based policy (EBP)?

“Evidence-based policy and practice means integrating experience, expertise and judgement with the best available external evidence from systematic research.” (Davies, 1999)

The aim is to help “make well-informed decisions about policies, programmes and projects by putting the best available evidence from research at the heart of policy development and implementation” (ibid.)

EBP involves

• a shift from opinion-based decision-making relying on
  ▪ selective use of evidence
  ▪ untested views of individuals or groups
  ▪ often influenced by vested interests, tradition, ideology, prejudice and speculation (Davies, 2004)

• a balance between professional judgement and expertise VS use of valid, reliable and relevant research evidence
Origins of EBP

‘Evidence-based medicine’ (EBM)

- A Cochrane (epidemiologist), *Effectiveness and Efficiency* (1972)
  - Disappointed by effectiveness of medical treatments cf. costs
  - Advocated more evidence-based approach to medical practice
  - 1993 – establishment of ‘Cochrane Collaboration’ for systematic reviews and meta-analyses (e.g. of randomised controlled trials)
- Sackett & Gordon – explicit methodologies to determine ‘best evidence’
- 1991 1st use of term (Guyatt, ‘EBM’, *Int Ann Med*)
- 1992 ‘EBM Working Group’ initiated reviews in *JAMA*
- Definition of EBM
  - "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 et al., *BMJ*, 1996)
Emergence of concept

Replaced evidence-based medicine with evidence-based medicine to match how we processed the books.
Replaced evidence-based policy with evidence-based policy to match how we processed the books.
Replaced evidence-based management with evidence-based management to match how we processed the books.
Extension of concept – mad cows


• Presidential Address to the Royal Statistical Society
• Greater role for statistics and statisticians re complex societal issues
• Extend concept of EBM to wider policy issues e.g. education, penal policy

“Most of us have aspirations to live in a society which is more, rather than less evidence based…there has been the growth of a movement in recent years calling itself ‘evidence based medicine’, which perhaps has valuable lessons to offer.” (Smith, 1996)

But emergence of EBP driven more by government institutions and research funders than academics

• i.e. a ‘demand pull’ rather than ‘science push’ innovation (cf. Mulgan, 2005)
Ext’n of concept – New Labour

New Labour manifesto (1997)
• Shift from ‘conviction politics’ to pragmatism
• “What counts is what works” (T Blair, 1997 Labour Manifesto)

• Called for policies “that are forward looking and shaped by the evidence rather than a response to short-term pressures; that tackle causes not symptoms”.

Centre for Management and Policy Studies (CMPS)
• Established in Cabinet Office
• Directed by former Chief Executive of ESRC
• Provided training & devlpt activities within civil service
• Signified growing interest in policy research & evaluation in government
Extension of concept (cont.)

Other UK Government policy documents

- Cabinet Office (1999), *Professional Policy Making for the Twenty-First Century*
  - “Policy making must be soundly based on evidence of what works”
  - Government departments must improve their capacity to make use of evidence
- Cabinet Office (2001), *Better Policy Making*
  - Claimed policy making was now “more informed by evidence” than previously
  - Cited reviews of existing policies, commissioning of new research, piloting of new initiatives, & evaluations of new policies in support

Other EBP initiatives

- Local authorities, Quangos, Res Councils, foundations
Other drivers

Early ’90s, changing ‘social contract’ for public research
- Need to address economic and social needs
- From ‘ivory tower’ to ‘engine’ of the knowledge economy

Social sciences
- Previously under threat from Government
  - K Joseph – “there is no such thing as social science”
- Needed to show that ‘useful’
  - H Newby (ESRC) – increased engagement e.g. in 1993 UK White Paper on S&T, Technology Foresight Programme etc.
- D Blunkett (2000) – called on social scientists to assume larger role in policy-making process
  - “Social science research evidence is central to development and evaluation of policy… We need to be able to rely on social science and social scientists to tell us what works, and why and what types of policy initiatives are likely to be most effective.”
- The ‘utilitarian turn in research’ (Solesbury)
Other drivers (cont.)

Academic researchers

• more willing to engage with society
• more pragmatic attitude to theory and method
• ‘thirst’ for evidence to help improve policy, strategy, management, practice etc.
• emphasis on wider engagement and communication
  ▪ producing relevant and accessible reports
  ▪ using plain language
  ▪ making clear succinct presentations

Shift from Mode 1 to Mode 2 (Gibbons et al.)
Other drivers (cont.)

Spread of EBP from medicine to education, social work, criminal justice, urban regeneration etc.

Late 1990s – concept of ‘evidence-based policy’ began to appear in academic conferences (~1998) and publications (e.g. Davies et al., 1999 & 2000)

1999 DES initiative
• Centre for Evidence-Based Education (SSRU, UL)

2000 Campbell Collaboration
• Based on Cochrane Collaboration
• Aim = to provide systematic reviews and evidence on the effectiveness of policy interventions in education, crime and social welfare (Davies & Boruch, 2001)

2000 ESRC initiative
• UK Centre for Evidence-Based Policy and Practice (CEPP)
• QML hub + specialist nodes
Other related developments

The ‘death of deference’
  • Decline in deference to professionals – no longer treated as ‘priesthood’

Emphasis on public accountability and openness
  • Expect to have all the evidence before make decisions
  • Monitoring and evaluation to ensure ‘value for money’

Rise of ‘new public management’ (Head, 2008)
  • Exposing public institutions to public choice, competition and ‘market forces’ to enhance efficiency

Emergence of ‘knowledge management’
  • Knowledge needs to be systematically acquired, managed and used
  • Growth of ‘think tanks’ (e.g. Demos)
  • Reviews & evaluations by management consultants etc.
Earlier precursors of EBP

18th C – influence of philosophers
- Fr Rev’n – Condorcet, Diderot, Voltaire
- Scottish Enlightenment – Hutcheson, Hume, Smith

In late 19th and early 20th C, interactions between social scientists and policy makers
- e.g. re poverty, pensions, education, establishment of welfare state
- UK – Sidney & Beatrice Webb, Keynes
- US – New Deal
- WWII – e.g. operational research, economics (Keynes, Galbraith etc.)

1960s – again close interactions
Spread of EBP to other countries

Europe e.g.

• Netherlands, Belgium, Switzerland
  ▪ “innovation policy making in Switzerland is evidence-based”

• EU initiatives e.g.
  ▪ “The JRC will provide support to evidence-based research policy-making at both EU and Member State levels.”
  ▪ ERA-Policies – “aims at providing policy makers both in the Commission and in Member States with relevant information and intelligence, in order to support evidence-based policy-making in the research field …”
  ▪ ERAWATCH – “supports evidence based policy making in Europe and contributes to the realisation of the European Research Area (ERA)”
  ▪ But recent setback – European Chief Scientific Adviser abolished by EC President Juncker in 2014
Spread of EBP

Other countries (esp’y English-language)

- US
  - e.g. NSF $6.8M initiative to develop policy-relevant Science Metrics: “The goal is to develop the data, tools, and knowledge needed to establish the foundations for an evidence-based science policy.”
- Australia, New Zealand, South Africa, APEC

Often built on earlier related activities

- e.g. evaluations of policies and institutions, technology assessment, technology forecasting etc.

But EBP aims to go well beyond just relying on post hoc assessments and single studies
What does EBP require?

Evidence = ‘the available body of facts or information indicating whether a belief or proposition is true or valid’ (OED)
  • i.e. ‘availability’ and ‘validity’ important

In bringing evidence to bear on policy/practice, key qu’s are
  • How relevant is this to what we are seeking to understand or decide?
  • How representative is this of the population that concerns us?
  • How reliable, how well-founded – theoretically, empirically – is it? (Solesbury, 2001)

Four requirements re evidence:
  • Agreement as to what counts as evidence
  • A strategic approach to creation of evidence
  • Effective dissemination of evidence to where it is most needed
  • Initiatives to ensure integration of evidence into policy (Nutley et al., 2003)

To get from ‘this policy worked there’ to ‘it should work here’, need to know about the causal/support factors (Cartwright & Hardie, 2012)
What does EBP require? (cont.)

Different types of evidence (Davies, 2004; UK Civil Service ‘Policy Hub’ website)

• *Experimental* – e.g. controlled trials, pilot studies, before-and-after studies
• *Surveys* – e.g. social surveys
• *Qualitative research* – e.g. evaluations, interviews, focus groups, consultative techniques, observational studies etc.
• *Economic* – e.g. econometric, cost-benefit analysis, statistical modelling
• *Expert* - e.g. expert advisory groups, special advisers
• *Public attitudes* – e.g. experiences, expectations, understanding
• *Ethical* – e.g. consultation re values, beliefs, aspirations
• *Systematic reviews* – research evidence from all relevant sources that has been systematically searched, critically appraised and rigorously analysed according to explicit and transparent criteria – the ‘gold standard’ in EBP!

Evidence may be concerned with

• descriptive analysis of problem/issue
• policy process or implementation
• output, impact and/or outcome of policy
When is evidence most likely to influence policy?

Weiss (1998) – factors likely to facilitate use of evidence
- When implications *non-controversial*
- When *changes* implied are relatively *small*
- If *policy environment* is relatively *stable*
- If *current programme* is *in crisis*

Nutley et al. (2000) – attributes important for rapid diffusion
- *Relative advantage* over current alternatives
- *Compatibility* with past practices, current values and existing needs
- *Simplicity* – readily understood and easily implemented
- *Trialability* – can be tried out at low cost before wholesale adoption
- *Observability* – degree to which benefits are visible and may stimulate others to adopt

Intermediaries often play important role in convincing others
- e.g. opinion leaders, change agents (cf. Rogers, 1995)
The limits of evidence

Mulgan (2005) – main limits

- Democracy – elected politicians influenced by other factors (political, economic, electoral, religious) as well as ‘evidence’
- Ambiguity – different groups with different interests and values may frame and interpret evidence in different ways
- Time – politicians may need to act before time to collect reliable evidence
- All knowledge of social world is socially constructed and historically and culturally contingent, not universal across time and space
The limits of evidence

Sanderson (2006) – policy deals with complex systems
• Non-linear, open, non-equilibrium, unstable systems
• Exact predictions impossible
• Undermines assumptions of instrumental rationality underpinning traditional social & economic theories and methodologies

Pawson & al. (2011)
• “Evidence does not come in finite chunks offering certainty and security to policy decisions. Rather, evidence-based policy is an accumulative process in which the data pursue but never quite draw level with unfolding policy problems.”
Analogy between EBP & innov’n

Policy-relevant research finding $\Leftrightarrow$ ‘invention’;
EBP $\Leftrightarrow$ ‘innovation’ - depends on dialogue (EC, 2008)

How can we increase the adoption of evidence?
Look at literature on diffusion of innovations e.g.

Suggests adopters often do not make rational, technically efficient choices about whether to adopt, but are more influenced by fads and fashions (Nutley & Davies, 2000)

Diffusion models e.g. Rogers (1995) – 5 stages

(1) knowledge (2) persuasion (3) decision (4) implementation (5) confirmation

But too linear? Better to view process as a less sequential/predictable ‘innovation journey’ (Van de Ven et al, 1999)?

Different categories of adopters e.g.

Innovators, early adopters, early majority, late majority, laggards (Rogers, 1995)

Need different strategies to target each of these

Need for absorptive capacity (Howlett, 2009)
Is evidence-based policy realistic?

‘Evidence-based policy’

• “misrepresents the relationships between evidence and policy” (CEPP)
• implies evidence is the sole thing to consider
• ignores the fact that politics often more important than evidence
  ▪ “the real world of political decision-making … is characterised by bargaining, entrenched commitments, and the interplay of diverse stakeholder values and interests” (Head, 2010)
• uses metaphor of a ‘base’, implying “a kind of solidity, which is often not there, certainly in the social sciences” (Solesbury, 2000)
  “Too often, the evidence needed to inform decision-making at all levels of practice is hard to come by, of questionable quality and uncertain relevance.” (Gowman and Coote, 2000)
Is evidence-based policy realistic?

‘Evidence-based’ – too strong?
‘Evidence-informed policy’ more realistic? (Boaz & al., 2008)

- UK Select Committee on S & T – “while evidence plays a key role in informing policy, decisions are ultimately based on a number of factors – including political expediency.”

The cynical riposte – evidence-based policy or policy-based evidence?

- e.g. Glees (2005), ‘Evidence-based policy or policy-based evidence? Hutton and the Government’s use of secret intelligence’

- i.e. search for evidence that fits the policy, rather than vice versa
Conclusions

Evidence-based policy

• Emerged from earlier EBM concept
• Driven more by government demand than social science ‘push’
• Had significant influence in Europe (especially UK) and elsewhere
• Better to view as ‘evidence-influenced policy’
Conclusions (cont.)

Innovation policy/management research

• Always aimed to address policy issues
• Made some notable contributions to EBP over last 30-40 years
• But still some way from true ‘evidence-based policy’
  e.g. few if any randomised controlled trials, systematic reviews or meta-analyses
Conclusions (cont.)

Over time, social scientists developed ever more sophisticated models of STI

- But (most) policy-makers have limited ‘absorptive capacity’

If models/evidence too complex, risk being ignored

- ‘What is the optimum level of sophistication of STI models/evidence?’
- Need a balance between sophistication and policy utility

Over last 30 years, may have developed models that provide better representation of complex realities

- But are they still as useful to policy-makers?
- Are resulting policies that attempt to reflect this more sophisticated understanding more effective than those of 30 years earlier?

*Do we have robust evidence that EBPs are more effective?*
Final thought

“There is nothing a government hates more than to be well-informed; for it makes the process of arriving at decisions much more complicated and difficult.” (Keynes)
EBP References


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