
Research

Evidence-based best practice is more political than it looks: a case study of the 'Scottish Approach'

Paul Cairney, University of Stirling, p.a.cairney@stir.ac.uk

National governments use evidence selectively to argue that a successful policy intervention in one local area should be emulated in others ('evidence-based best practice'). However, the value of such evidence is always limited because there is: disagreement on the best way to gather evidence of policy success, uncertainty regarding the extent to which we can draw general conclusions from specific evidence, and local policymaker opposition to interventions not developed in local areas. How do governments respond to this dilemma? This article identifies the Scottish Government response: it supports three potentially contradictory ways to gather evidence and encourage emulation.

keywords: evidence-based policymaking • best practice • Scottish Approach • scaling up

Introduction: the politics of scientific practice

National governments often use evidence to argue that a policy intervention which proved successful in one local area should be emulated in many others. For example, they use policy evaluations to identify 'best practice' and seek ways in which to 'scale up' successful policy interventions. Although 'scaling up best practice' sounds straightforward, it highlights many issues identified frequently in studies of evidence-based policymaking (EBPM): policy-relevant evidence is limited; evidence does not settle matters of politics and principle, such as when local policymakers object to the importation of policies that were not developed in, or adapted to, their area; and, national policymakers often distort the evaluation process by using evidence selectively to highlight the success of the 'beacons' of local good practice they plan to roll out nationally (Cairney, 2016; Lomas and Brown, 2009; Botterill and Hindmoor, 2012; Head, 2010; Ettelt et al, 2012; Bédard and Ouimet, 2012; Sanderson, 2002, 9–10, 13; Geyer, 2012; Monaghan, 2011, 30–1; Boswell, 2009, 7–8, 25, 43–5; McConnell, 2010).

Central government strategies can vary markedly, including a flexible and voluntary approach, to share evidence of success with local policymakers and encourage emulation, and an inflexible and obligatory approach, to prioritise specific evidence and enforce uniform practices (Cairney et al, 2015). The differences in strategies are driven partly by the need for policymakers to balance: an electoral imperative, in which central governments assert their control over policy delivery to present an image of governing competence; and, the advantages of delegation and local democracy (2015,

3). However, they also reflect unresolved debates within the scientific profession about the political choices academics make to promote some forms and sources of evidence and reject others. Consequently, I identify the important link between (a) academic debates, reflecting uncertainty about how best to produce evidence, and (b) policymaker uncertainty about how to use it.

My overall aim is to show how academic and policymaker uncertainties reinforce each other when policymakers seek to 'scale up best practice'. This process has two key elements. First, 'the evidence' takes many forms because academics do not adhere to the same hierarchy of evidence. Instead, there is a spectrum of understandings: at one end is evidence-based medicine (EBM) which favours randomised control trials (RCTs) and their systematic review; at the other is practice-based evidence, which favours 'street-level' professional experience and service user-based feedback (Nutley et al, 2013; Dobrow et al, 2006; Stoker, 2010; Pawson, 2006, 52–4; Petticrew and Roberts, 2006, 57–9, 68; Axford and Pawson, 2014). This lack of adherence to the idea that there is 'one best way' to produce good evidence is pronounced within national government, and often more pronounced among local policymakers, many of whom do not know that evidential hierarchies exist (Lomas and Brown, 2009, 906; Cairney, 2016).

Second, the process to turn evidence of local best practice into nationwide activity can take many forms. The spectrum ranges from a decision to: oblige policy emulation and roll out policy interventions that require 'fidelity' (minimal discretion to adapt interventions to local circumstances); or, encourage policy inspiration, as people tell stories of their experiences and invite others to learn from them (Hobin et al, 2012, 106; Williams and Glasby, 2010, 97; Sackett et al, 1996, 71). These approaches are tied strongly to approaches to evidence gathering, such as when programmes based on RCTs require fidelity during a continuous process of policy delivery and evaluation. They are also influenced by the need to adapt policies to local circumstances, to address (a) the 'not invented here' problem, in which local policymakers are sceptical about importing policies that were not developed in their area; and, (b) normative arguments about the relative benefits of centralisation and localism, or the extent to which we should value policy flexibility and local political autonomy as much as effectiveness (Cairney et al, 2015, 2–3).

In effect, two debates play out at the same time: epistemological and methodological disagreements on the nature of good evidence; and, practical or ideological disagreements regarding the best way for national policymakers to translate evidence into local policy and practice. They produce major dilemmas for policymakers, which cannot be solved by scientists or with reference to evidence. Instead, these are political choices about which forms of evidence to prioritise and how to use evidence to inform practice. In this context, the role of policy analysis is to clarify the nature of these choices to help policymakers make informed decisions.

The case study of policymaking in Scotland

My specific aim is to use empirical research to identify how policymakers such as civil servants address this dilemma. I provide the case study of policymaking in Scotland. The Scottish case is important for two reasons. First, the Scottish Government has been exploring new ways to combine (a) the spread of evidence to encourage 'scaling up' best practice nationally, with (b) sharing responsibility for policy delivery and

outcomes with local policymakers (Scottish Government and ESRC, 2013). Further, the Scottish Parliament Finance Committee has taken a particular interest in the identification of best practice in key areas. Second, however, it is unclear how the Scottish Parliament articulates the idea of best practice, and the Scottish Government uses a mix of three potentially contradictory approaches. Consequently, I describe how policy analysis can be used to explain the criteria that they can use to underpin their choices.

The empirical research is based on a combination of documentary analysis and semi-structured interviews with 20 Scottish Government civil servants, and 20 MSPs and clerks on four committees (Finance, Local Government, Education, Justice), from 2014–15. Two Scottish Government civil servants recruited the most relevant interviewees based on my description of the project. I secured ethical consent by the University of Stirling, and access to the Scottish Government, after submitting a detailed description of the project's aims and approach, which included a commitment to high interviewee anonymity (using written, non-audio recorded, non-attributable interview notes) to reflect the sensitive nature of the research, based (a) on its timing (before and after a referendum on Scottish independence) and (b) the general limits to the issues that civil servants can discuss in an official capacity. It took approximately one year to secure the ethical clearance and gain consent for the interviews. Part of the agreement is that, to ensure maximum anonymity, I present all relevant data in this article as a general or combined view of civil servants, with no reference to specific statements by individuals. I combine this evidence with reference to documents in the public record.

After explaining the project to interviewees, I used two broad questions on EBPM ('on what evidence are these policies based?' and 'besides evidence, what other considerations influence policy?') and follow-up questions based on their responses. I coded the interviews manually, identifying what I perceive to be the three main approaches promoted or used by civil servants to pursue evidence-based best practice (Table 1).

The Finance committee clerk performed the same recruitment role in the Scottish Parliament, and I used the same method of recording to ensure consistency and encourage frank discussion. I conducted interviews with the Finance and Local Government committee MSPs as a group. Emily St Denny and I then worked with the Finance committee to clarify ways to identify evidence-based best practice by: (a) organising our ESRC-funded workshop in June 2015 to bring together 20 academics, MSPs, civil servants and practitioners, to compare the three approaches, and (b) providing evidence to the committee's inquiry on how to use evidence to scale up good practice in 'prevention' policy (Cairney, 2015).

The 'Scottish Approach to Policymaking'

Academic studies of policymaking in Scotland analyse critically the broad idea of a 'Scottish style' (generally compared with UK government policymaking) built on (a) high levels of consultation with stakeholders to gather oral and written evidence, and (b) a willingness to form partnerships with local policymakers rather than impose national policies (Keating, 2005; 2010; Cairney, 2009a; 2009b; 2011b; 2013; Cairney and McGarvey, 2013). More recently, the Scottish Government has presented a *specific vision* of its self-styled 'Scottish Approach to Policymaking' based on:

1. The small size and scale of its responsibilities. For example, Scottish Government ministers and civil servants have the ability to form personal relationships with leaders of local authorities and public bodies (Elvidge, 2013, 31–3).
2. A government-wide *National Performance Framework*. The Scottish Government identifies a shared purpose for the public sector, but measures success in terms of long-term outcomes, and gives local authorities high discretion to meet the framework's objectives, by producing 'Single Outcomes Agreements' in partnership with local stakeholders and public bodies in 'community planning partnerships' (CPPs) (Scottish Government, 2007; 2014; Keating, 2010, 123–4; Matthews, 2014; Cairney, 2011a, 130; Cairney and McGarvey, 2013, 139–40).
3. Governance principles. It highlights its focus on the 'assets of individuals and communities', the 'co-production' of services with users and communities, and 'improvement underpinned by data, evidence and the application of improvement methodologies' (Scottish Government and ESRC, 2013 ; Housden, 2013; 2014).
4. A commitment to 'achieving a decisive shift to prevention' following the Christie Commission's agenda to reform public services, address inequalities and reduce demand for reactive or acute services (Scottish Government, 2011; Commission on the Future Delivery of Public Services, 2011). Prevention policy refers to, 'actions which prevent problems and ease future demand on services by intervening early, thereby delivering better outcomes and value for money' (Audit Scotland, 2014, 30). One aim is to address social problems through 'early intervention', with a particular focus on pre-school children and parenting programmes (Cairney and St Denny, 2014). Another relates to older people, to prevent falls and other events or illnesses that would increase the chance of long-term hospital in-patient treatment.

The 'Scottish Approach' to scaling up evidence-based best practice

There are two reasons to expect the Scottish Government to favour a flexible and voluntary approach to evidence-based best practice. First, the Christie Commission *placed far higher value on governance principles than a hierarchy of evidence*. It prompted the Scottish Government to: change its relationship with delivery bodies; address a lack of joint working in the public sector, caused partly by separate budgets and accountability; and, engage 'communities' in the design and delivery of public services, rather than treating them as 'passive recipients of services' (Commission on the Future Delivery of Public Services, 2011: 27). Christie recommends projects which involve: personalising service delivery, training kinship carers, fostering social networks, encouraging partnerships with third-sector bodies and 'bottom-up' service delivery through organisations such as community development trusts (Commission on the Future Delivery of Public Services, 2011, 28–34; Audit Scotland, 2014).

When Christie provides examples of best practice, there is no discussion of RCTs, and minimal discussion of (a) criteria to determine success with evidence, or (b) the issues involved in 'scaling up' projects. Instead, in 12 cases, it provides different ways to identify success, based on: user-testimony, an 'assets-based' approach, a short-term evaluation of the money and/or time saved by a project, the identification of better short-term outcomes for the service users, and/or higher user or community engagement with public bodies (Commission on the Future Delivery

of Public Services, 2011, 28–9, 31–4, 43, 49, 58). Although specific projects may be recommended because of their potential effectiveness, Christie generally focuses on principles of governance: *as the right thing to do*.

In other words, any recommendations on evidence-based best practice can relate to: (1) evidence on the effectiveness of the *active ingredient* of policy interventions; and/or (2) an expectation that the *delivery system* will take a particular form, regarding the extent to which it is ‘co-produced’ by community bodies, non-governmental organisations and/or service users. The distinction comes from a medical analogy. For example, in ibuprofen the active ingredient is isobutylphenyl (which comes with a suggested dosage) and the delivery system is the gelatine capsule. The distinction does not have a *direct* equivalent in public services because the policy intervention’s ‘ingredient’ may only be sufficiently ‘active’ if the programme is delivered in a particular way. Still, Christie provides no impetus to evaluate the ‘active ingredients’ of projects and focuses primarily on the *a priori* importance of the delivery system.

Second, the ‘Scottish Approach’ involves devolving significant levels of policy responsibility to CPPs and encouraging them to innovate and learn from each other, with the Scottish Government largely playing a supportive role.

In terms of the evaluation of policy, documentary analysis suggests that its favoured option is to develop improvement science-based ‘collaboratives’ in local areas (Scottish Government and ESRC, 2013). Further, almost all interviewees suggest that the use of RCTs, to evaluate policy in Scotland, has not taken off in the same way as in the UK Government. This reluctance to use RCTs relates partly to Scotland’s population size which often produces a small sample size for specific interventions. Further, advocates of improvement science, within the Scottish Government, criticise excessive investment in what they describe as traditional models, in which RCTs are used to establish the evidence base without ensuring that the evidence is translated into practice. They tell the same story that a small proportion of RCT evidence is translated into practice after 17 years (Morris et al, 2011), and/or mention the famous spoof publication used to lampoon an excessive reliance on RCTs in inappropriate circumstances (Smith and Pell, 2003).

This attitude to RCTs reinforces findings in the comparative literature that, although RCTs and systematic review may represent the ‘gold standard’ in EBM, they have a limited impact on communities of civil servants seeking research, or professions focused on everyday practice (Bédard and Ouimet, 2012: 625–8; Petticrew et al, 2004, 813; Green and Gerber, 2003, 96, 101; Dobrow et al, 2006, 1817). There exists a perception, (a) by policymakers that an RCT does not answer their question fully or capture the complexity of a policy problem, and (b) by practitioners delivering policy in local areas that RCT evidence does not apply to their area. This may undermine the uptake of RCTs without a concurrent focus on the development of local ‘ownership’ (Stoker, 2010, 51–2).

Three approaches to evidence-based best practice

Although the Scottish Government appears to favour improvement science and academic-government-practitioner collaboratives, I argue that it actually encourages three models of evidence gathering and ‘scaling up’, including the use of RCT-driven models which require fidelity and limit local discretion. It is difficult to identify

what proportion of services is covered by each model. Instead, they are *ideal-types* (outlined in Table 1).

	Approach 1	Approach 2	Approach 3
	Policy emulation	Storytelling	Improvement science
How should you gather evidence of effectiveness and best practice?	With reference to a hierarchy of evidence and evidence gathering, generally with systematic reviews and RCTs at the top.	With reference to principles of good practice, and practitioner and service user testimony.	Identify promising interventions, based on a mix of evidence. Encourage trained practitioners to adapt interventions to their area, and gather data on their experience.
How should you 'scale up' from evidence of best practice?	Introduce the same specific model in each area. Require fidelity, to administer the correct dosage, and allow you to measure its effectiveness with RCTs.	Tell stories based on your experience, and invite other people to learn from them.	A simple message to practitioners: if your practice is working, keep doing it; if it is working better elsewhere, consider learning from their experience.
What aim should you prioritise?	To ensure the correct administration of the active ingredient.	To foster key principles, such as respect for service user experiences.	To train then allow local practitioners to experiment and decide how best to turn evidence into practice.
Illustrative example	Family Nurse Partnership	My Home Life	Early Years Collaborative

Approach 1: policy emulation

Policymakers may favour interventions because their success is backed up by empirical evidence (for example, they may hear of the well-documented success of an intervention applied in another country). In approach 1, the most important evidence comes from systematic reviews and RCTs. Further, the interventions require 'fidelity', to ensure that the active ingredient is given in the correct dosage, and to measure the model's effectiveness (using RCTs). In such cases, the projects are relatively likely to be funded and controlled by central governments, and linked to an 'implementation science' agenda in which we consider how best to roll out the most successful evidence-based interventions in as many areas as possible (Nilsen et al, 2013).

The Family Nurse Partnership (FNP) is a key example.¹ It began in the US as the Nurse-Family Partnership, designed to engage nurses with first-time mothers (deemed to be at relatively high risk of poor life chances) approximately once per month from pregnancy until the child is two. The criteria for inclusion relate to age (mostly teenage), income (low), and partnership status (generally unmarried). Nurses give advice on how mothers can look after their own health, care for their child, minimise the chances of further unplanned pregnancy, and access education, training or

employment. The FNP combines an intervention to address the immediate problems of mothers and early intervention to influence the longer-term impact on children.

The US' Coalition for Evidence-Based Policy (2012) gave it 'top tier' status, which describes:

Interventions shown in well-designed and implemented randomized controlled trials, preferably conducted in typical community settings, to produce sizable, sustained benefits to participants and/or society.

Identifying three US-based RCTs, it describes common outcomes in at least two, including reductions in prenatal smoking, child abuse and neglect, and second pregnancies, and improvements in their child's cognitive function and education attainment (in follow-ups when the children reached 15–19) at a low cost. These trials have been conducted since the first project began in 1977, producing at least 18 peer-reviewed articles (including by its pioneer Professor David Olds, who read and commented on a draft of my article) in elite academic journals (such as *Journal of the American Medical Association*). More recent RCTs identify comparable results in non-US studies (Nurse-Family Partnership, 2015).

The programme was rolled out in England to 9000 mothers, with reference to its high cost effectiveness and 'strong evidence base', which would be enhanced by an RCT to evaluate its effect in a new country (Family Nurse Partnership National Unit, 2014). The FNP requires fidelity to the US programme (you can only access the programme if you agree to the licensing conditions) based on evaluation results which showed that the programme was most effective when provided by nurses / midwives and using a license 'setting out core model elements covering clinical delivery, staff competencies and organisational standards to ensure it is delivered well' (Department of Health, 2012, 6). Fidelity is a requirement because, 'If evidence-based programmes are diluted or compromised when implemented, research shows that they are unlikely to replicate the benefits' (2012, 6).²

This focus on continuous evidence-gathering and fidelity is reflected in the Scottish pilot study in NHS Lothian, in which the first evaluation of progress, in year 1, lists achievement according to: recruitment from as early in pregnancy as possible but no later than the 28th week of pregnancy; and, all nurses meeting the qualification criteria, attending all training, working exclusively on the FNP, and having a caseload no higher than 25 (Martin et al, 2011). The Scottish evaluation involves quantitative data to monitor implementation fidelity (one part of the license requirement), and longitudinal qualitative interviews with participants, stakeholders, and practitioners, to help understand the issues that arise 'on the ground' during implementation (Ormston et al, 2014, 16). There is no Scotland-specific RCT to determine if the FNP produces better outcomes than existing provision. Rather, previous RCTs have been used to justify its introduction, the 'UK RCT' takes place in England, and new evidence in Scotland comes from user feedback and professional experience. The FNP has now been adopted by the majority of health boards.

This example suggests that use of RCTs remains important to healthcare policy, and medical science has high status within at least one government department. The FNP was initially funded and its license held directly by the Scottish Government, partly because it is not expensive, and providing the funding directly was easier and quicker

than generating widespread local agreement to merge budgets (although most health boards have now agreed to part-fund and support the FNP in their strategic plans).

The FNP's requirement of fidelity, with minimal local deviation, does not appear to exacerbate the 'not invented here' problem (in fact, more problems were caused previously by a Glasgow project which 'cherry-picked' some parts of the FNP).³ Rather, fidelity proved to be fundamental to its political success, since any attempt to change it – to adapt it to local requirements, or incorporate it into existing services – were rebuffed on the grounds that it would invalidate the license.

Approach 2: storytelling

When recommending this approach, advocates make reference to principles of good practice and the value of practitioner and service user testimony. Policymakers create a supportive environment in which practitioners and service users can tell stories of their experience and invite other people to learn from them. The storytelling approach describes a range of practices, relating to: often small-scale community projects, with the potential to scale up from a small base; practice-based initiatives fostered within particular professions such as social work; and, public sector leadership programmes such as *Skilled Workers*, *Skilled Citizens*.⁴

These projects are based on a rejection of: (a) the reliance on evidence gathering from RCTs to determine success, and (b) the uniform 'scaling up' of successful projects. Advocates often refer to the importance of complex systems (see Geyer and Cairney, 2015; Cairney, 2012), an inability to 'control' delivery and policy outcomes (to challenge the idea of controlled experiments in RCTs), and the need to create new and bespoke evidence through practice or experiential learning. The approach also provides an alternative to a focus on short-term or numerical performance management as indicators of improvement, in favour of 'success stories' or quality management systems based on service user and staff feedback (such as 'Qual A Sess' – Davies and Heath, 2007, 32–4). With this approach, even if an innovation originally developed elsewhere, the evidence about its applicability to local areas comes from service users and practitioners in local areas: we use stories, conversations and practice-based or user feedback measures of success to help us decide if a project is successful and worth adopting. External evidence can also be used, but to begin a conversation; or initiate further experience-based evidence gathering.

My Home Life (Scotland) is a key example. It began as a UK initiative 'to promote quality of life for those living, dying, visiting and working in care homes for older people through relationship-centred and evidence based practice' (<http://myhomelife.uws.ac.uk/scotland>). In Scotland, it is coordinated by the University of the West of Scotland, Age Scotland and Scottish Care. It relates closely to the Scottish Government's (2011) aim, 'that by 2020 everyone is able to live longer healthier lives at home, or in a homely setting', supported by a well-integrated health and social care system, 'a focus on prevention, anticipation and supported self-management', and an assumption against in-patient hospital treatment. The pursuit of a 'homely setting' in care homes involves, for example, the inclusion of residents in care home decisions, and processes of reflection regarding a manager's relationship with staff and staff attitudes to residents, via 'caring conversations' over an extended period (perhaps one year).

With this approach, evidence is gathered and used in a very different way to the RCT-driven FNP. Much derives from individual feedback, with a focus on the richness

of experience. The result may be a set of principles to inform future practice, not a specific intervention with a correct dosage. The principles are deliberately broad, to allow practitioners and service users to make sense of them in specific settings. For example, Dewar, Cook and Barrie (2014, 5) identify principles to underpin care home design in West Dunbarton, citing work 'with over 60 academic researchers from universities across the UK to develop the evidence base for quality of life in care homes', to produce eight 'best practice themes', including the need for: services to facilitate 'personalisation'; residents, their relatives, and staff to help make care home decisions; and, continuous staff and management training or reflection to adapt to new circumstances. This approach contrasts markedly with the FNP's requirement to follow a model closely and gather quantitative data to measure fidelity. With 'my home life', there is no model, and practitioners and service users draw on their experiences to guide future practice and develop favourable institutional cultures.

Approach 3: improvement methodology / science

When recommending this approach, advocates make reference to a process in which they identify promising interventions (based on RCTs and other evidence⁵), and encourage trained practitioners to adapt and experiment with the interventions in their area and gather data on their experience. A core team describes the best available evidence to practitioners, teaches them improvement methods, and asks them to experiment with their own projects in their local areas (in some cases, with a handful of service users). The subsequent discussion about how to 'scale up' involves a mix of personal reflection on one's own project and a coordinated process of data gathering: people are asked for 'contextual' evidence for the success of their own programmes, but in a way that can be compared with others. If theirs is successful they should consider expansion. If there is evidence of relative success in other areas, they should consider learning from other projects. This approach may satisfy a general desire to use particular forms of evidence to inform practice, while the subsequent focus on experimentation satisfies a need to introduce local 'ownership' and address the 'not invented here' problem. This is followed by evidence gathering to consider if successful initiatives should be 'scaled up' in the long term.

The Early Years Collaborative (EYC) is a key example, although improvement science first earned its reputation (in the Scottish Government) from the NHS patient safety programme, which used the 'Breakthrough Series Collaborative Model' from the Institute of Healthcare Improvement (IHI) in Boston (it was promoted by the Scottish Government's former Director General in Health and Social Care, who has since taken up a senior post in the IHI). 'Collaborative' refers to a group of similar organisations engaging on a specific problem in a specified amount of time (such as 1–2 years), drawing on the 'sound science' on how to reduce healthcare costs or improve outcomes, which exists but 'lies fallow and unused in daily work. There is a gap between what we know and what we do' (Institute for Healthcare Improvement, 2003, 1). Participants identify a specific aim, measures of success, and the changes to test, then gather quantitative data on their effects, using a form of continuous learning summed up by a 'Plan-Do-Study-Act' cycle (2003, 7).

The EYC is an attempt, from 2012, to adapt and use the IHI's method for single organisations to coordinate a *multi-agency* project, working with local and health authorities through the 32 CPPs. It has widespread support from these bodies

(Scottish Government, 2014, 8). The first ‘learning session’, in January 2013, involved an audience of 800 practitioners. It focused on introducing the improvement method (and identifying the ‘early adopters’ crucial to selling the approach to colleagues), discussing the EYC’s core aim (‘best place in the world to grow up’), and outlining key aims in relation to different age groups: reduce infant mortality – associated with low birth weight, maternal smoking, obesity, deprivation and age (under 20 and over 40) – by 15% by 2015 (0–1); and, ensure that 85% or 90% achieve developmental milestones for 1–2.5 years, 2.5–primary age, and up to primary 4 (age 8) (Scottish Government, 2014, 53).

The second event focused on specific projects, but on the general assumption identified by interviewees that, unlike in patient safety, there is no set of known, effective interventions – with key exceptions, such as programmes to encourage parents or guardians to read to their children at bedtime – and that the Scottish Government, as a policy innovator, is providing lessons to the world rather than having an international evidence base on which to draw.

An important strand of this approach is learning as you go, accompanied by a long-term aim to gather comparable data on local practices to aid learning, supplemented by ‘word of mouth’ measures of success and local *ad hoc* decisions to expand projects they feel are successful. This is often justified with reference to the poor alternatives: the excessive gaps between the RCT evidence on a problem and resultant practice; and, the ‘old school’ approach to pilots, in which the world had changed before a 2–3 year programme reported back with recommendations. The new process is described as relatively messy – with local practitioners identifying problems in their own areas, choosing their own pace of change and learning as they deliver – and largely as a way to translate evidence into cultural or organisational change.

The initial evidence relates to the nature of the problem to be solved (such as the effect of trauma or deprivation on childhood development) rather than of successful interventions; and, there is less focus on the efficacy of an ‘active ingredient’ and more on the bespoke mode of delivery, underpinned by broad principles about how the public sector engages with people, organisations and communities (‘co-production’ and ‘assets-based’ approaches). For example, at least half of the factors underpinning EYC theories ‘of what actions will reduce infant mortality’ or ‘ensure developmental milestones are reached’ relate to public service leadership, management, communication, joint working and ‘family centred’ responses, supplemented with reference to, for example, nutrition and dental health (Scottish Government, 2014, 38–40).

The first evaluation also listed the high level of ‘stakeholder buy-in’ as one of its short-term (1–2 years) achievements (2014, 10–11). Long-term ‘culturally embedded’ innovation is anticipated in 5+ years (after 2 years, the idea of ‘scaling up’ is not always clear and the evidence on people using their new experience to inform wider service design is anecdotal – 2014, 28). The stated ‘theory of change’ is that if you engage and train the workforce in the IHI method they will use it successfully to address ‘7 key changes’ (to develop, for example, parenting skills), but on the proviso that it is difficult to link changes in outcomes to the activities of the EYC (2014, 12, 37, 32). Further, rather than attempting to direct local activities, a small Scottish Government team helps practitioners develop and use a ‘toolkit’ for improvement. When they discuss ‘scaling up’ practices to the national level, it refers as much to the IHI method as specific interventions.

How do these approaches compare?

A comparison of approaches 1 and 2 shows us that there is more than one way to generate a model for further action, and that there are important trade-offs between the criteria used to generate evidence and scale up programmes. One may be described as the pursuit of relative certainty through a centrally funded and directed programme; the other, the pursuit of flexibility and localism, with an emphasis on new forms of leadership and ‘letting go’ or developing staff capacity and the confidence to challenge top-down leadership. In that sense, the former focuses on the active ingredient (the intervention’s dosage) and the need to implement in the correct way, while the latter focuses more on the complex environment in which policy is delivered and the broad principles underpinning good practice.

Approach 3 differs markedly from approach 2 in terms of data gathering and training. In this case, people are asked for evidence for the success of their own programmes, in a way that can be compared with other programmes. If theirs is successful, when compared with others, they should continue and consider expansion. If there is evidence of relative success in other areas, they should consider emulating other projects. Further, people are trained in the IHI method and encouraged to think that this is the correct way to think about policy implementation. Such ideas would be rejected as too restrictive by advocates of approach 2.

Still, approach 3 appears to be far closer to approach 2 than 1: its focus on flexibility and localism is in direct contrast to the FNP’s need for fidelity to one model; and, its emphasis on practice and experimentation first, data second, and scaling up third, contrasts with the assumption underpinning the FNP that the data on its effectiveness has already been demonstrated before it is rolled out in Scotland (at least until long term RCT data is available – see Robling et al, 2015).

Conclusion

It is common to argue that politics trumps evidence in the policy process, but such statements generally refer to issues such as bounded rationality: people in power need to make choices in the face of uncertainty, and they draw on ideology, emotions, financial considerations, and other informational shortcuts to make decisions quickly. In this case, I go one step further to argue that *even the technical side to EBPM involves political choices* by actors such as academics and policymakers. Unless a government is willing to say ‘anything goes’, it has to choose which forms of evidence count and which strategy it uses to deliver policy. It may be tempting for governments to conclude that there is not one best way and that we should simply deliver ‘what works’, but this is to ignore the fact that one way often precludes another.

A commitment to ‘scaling up evidence-based best practice’ seems like an innocuous and technical exercise that can be built primarily on academic expertise. However, we can identify the role of politics when we highlight the choices that scientists and governments make to gather evidence and ensure policy diffusion. These choices are not simply technical. Rather, they are between fundamentally different approaches to evidence and governance. Policymaking strategies can vary markedly, based on attitudes to hierarchies of evidence and the willingness of central governments to encourage local policymakers to learn and adapt rather than impose the same model.

My analysis of the empirical evidence, based on documentary analysis and semi-structured interviews, suggests that the Scottish Government draws on three approaches, all of which offer very different ways to generate a scalable model of good practice. Indeed, in important respects, at least one approach contradicts the others. In particular, a comparison between approach 1 and 2/3 shows us the political choices that we make when identifying 'the evidence' and deciding how to ensure the spread of good practice. One involves a hierarchy of evidence and uniform implementation; another promotes more experiential evidence and local flexibility.

One of the Scottish Government's solutions to the potential contradiction between approaches seems to be methodological pluralism, in which there is not one best way to do research and turn it into practice. This may represent a pragmatic response to its concerns about the role of RCTs, the fact that some professions value qualitative research more highly (Nutley et al, 2013, 10–13; Head, 2010, 85; Hammersley, 2005, 86; Nutley et al, 2007, 5; Williams and Glasby, 2010), and its principled aim to foster localism.

However, first, it is difficult to tell if the Scottish Government has made an *explicit decision* to encourage several approaches, or if each approach has developed incrementally without central direction. This is a crucial point, because the selection of each approach has a major knock-on effect. For example, a movement from approach 1 to 2/3 shifts the balance between primary aims: from ensuring the correct administration of the active ingredient and measuring the success of specific interventions using RCTs, to fostering governance principles or local discretion. Although governments may state a commitment to all three aims, they should recognise that the pursuit of one can undermine another. Further, these choices affect important operational matters regarding, for example, how to train public sector leaders and assess the performance of civil servants.

Second, the Scottish Government has expressed a specific commitment to develop approach 3. By using this approach, it may feel that policy interventions can be pursued initially on the basis of well-established evidence but that, to reduce the huge gaps between evidence and practice, they need some way to introduce local flexibility and speedy implementation. They provide evidence to practitioners, teach them improvement science, and ask them to experiment with projects in their local areas. For some, approach 3 may represent an attempt to combine the merits of the other two approaches, but the advocates of the other approaches would question this assertion, since it reduces our ability to: evaluate policy success using RCTs or similar methods (approach 1); and encourage many ways to think about how to gather and use evidence (approach 2).

This discussion should warn us against the conclusion that, just because this aspect of EBPM is of low political salience, it is straightforward. A focus on concrete examples exposes just how differently this task can be understood and pursued. We are not just selecting an example of best practice but also a method to determine how it is evaluated and scaled up.

This conclusion produces two distinct dilemmas for governments and parliaments. For governments, it is about the extent to which it can encourage methodological pluralism and delivery diversity when investing in projects justified in very different ways. More generally, if policymakers draw on an eclectic mix of evidence sources, it is difficult to know (a) if they are drawing on contradictory sources of information and (b) how they could choose to accept the findings of one, and not another, if their

findings are contradictory (for example, how do we identify the separate contributions of the FNP and EYC to reducing infant mortality?). This issue is not *always* pressing for practitioners, who see the pragmatic value of justifying different projects in very different evidential terms, but it rises periodically when governments have to choose which projects to fund or terminate.

For parliaments, it is about how you can gather evidence primarily through testimony, relying on expertise *and* practitioner experience. This requires political choice, to decide what projects deserve investment and disinvestment when: experts disagree fundamentally about how you produce evidence-based best practice, or when expert evaluations contradict service user or practitioner experience. More generally, they face the need to balance an evidence-based focus on the active ingredient of an intervention and the principles-based focus on the delivery system. A reliance on 'the evidence', regarding which projects produce the most successful outcomes, is meaningless without the power to choose what evidence counts.

In this context, the role of policy analysis is to raise and explain these issues, to help policymakers clarify their choices and make more informed decisions. There is no scientific solution to the problem of evidence-based best practice, but there is a clear role for scientists in identifying key debates and informing that process.

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Notes

¹ The 'Triple P' parenting programme is another key project which has high Scottish Government and stakeholder support. However, I detected slightly lower support for Triple P, perhaps because it has received serious criticism as a whole (Wilson et al, 2012; Sanders et al, 2012; Coyne and Kwakkenbos, 2013) and in an evaluation of its progress in Glasgow (Marryat et al, 2014; Wilson, 2014, 1–2).

² The FNP website, www.fnp.nhs.uk/commissioning-and-delivery/preparation-and-delivery/fidelity-goals outlines 'fidelity goals' which resemble those for medicines.

³ A previous 'Starting Well' project began in Glasgow in 1999, which referred to the US work but widened the focus to all mothers, and communities rather than individuals, left antenatal care to other professionals, and used 'paraprofessionals'. It had limited success (Mackenzie et al, 2004). Subsequently, Professor Olds was only willing to license the FNP to operate in Glasgow when the Scottish Government agreed to hold the license, monitor fidelity, and demonstrate promise in Lothian (in the context of an RCT taking place in England, which partly acts as a proxy for success in Scotland).

⁴ Its aim is to develop a public service workforce in collaboration with service users and the wider public, alongside leadership development which focuses on the benefits of 'letting go', to allow people in positions of formal leadership to include staff and service users in the decision-making process. See www.scottishleadersforum.org/skilled-workers-skilled-citizen

⁵ They may use RCT evidence more to identify the causes of policy problems than the effectiveness of solutions. For example, interviewees refer to clinical trials on early childhood trauma (and physical effects, such as raised cortisol levels) as a predictor of future behaviour.

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