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Full Project Description

A Formative Evaluation of the SDO Management Fellowships

Background

The primary aim of this study is to understand the benefits and challenges of the SDO Management Fellowships and so inform the future development of the scheme.

The NHS has an established record of trying to encourage the use of research to improve patient care. Most prominent perhaps is the National Institute of Health and Clinical Excellence (NICE), which seeks to provide evidence-based guidance on clinical practice. Uptake of guidance, however, is difficult to achieve (1, 2). Failure "to translate research knowledge into action in health care contributes to health inequities and wastes time-consuming research" (3).

The Fellowships speak to concerns about translating research into practice. This fits with a wider international policy drive to make healthcare delivery and policy more evidence-based and is motivated by the belief that the application of evidence to health service will improve quality and outcomes (4-7). The small existing literature shows that healthcare managers tend not to use research (8-12). Some of the barriers to implementation result from professional and organisational issues, such as lack of capacity to use research by would-be implementers (8-11). It is seen as more challenging to encourage managers than clinicians to use research evidence owing to differences in their professional culture, context and content (13, 14). On the whole, the evidence-based medicine movement gives little focus to contextual factors - focusing instead on achieving high levels of internal validity - so actual implementation remains a problem. At the same time, as noted in the Call document, managers are encouraged to use research to support commissioning decisions, strategy development, and in encouraging clinical colleagues to change practice in line with "best evidence".

A number of theoretical models of knowledge transfer have been developed (15), some of which highlight the importance of interpersonal relationships in the transfer process. Evidence-based healthcare has been described by Lomas (16) as a "contact sport". This description is relevant to the SDO fellowship scheme which focuses on people – the Fellows, their colleagues in the workplace and the research teams - and gives important recognition to the social process of knowledge mobilisation. Conceptually there are a number of aspects to this. In struggling to "implement" evidence-based medicine or management, there are issues relating to the production of research in healthcare, including its relevance and generalisability (17). The SDO Fellowships are designed to encourage user input into the research, so enhancing the salience and applicability of research output for practice. Thus, the Fellowships are premised on models of knowledge exchange, rather than transfer. Interventions based on knowledge exchange are expected to lead to higher levels of change than interventions based on transfer models (publishing Guidelines for example). Even without the active participation of managers, literature suggests that a close relationship between researcher and user is more likely to encourage the uptake of research (8, 12, 18).

Despite this small literature pointing to the importance of relationships between researcher and potential user (8, 12, 18) there are few interventions which aim to close this gap (19), and still fewer evaluations which can be used to inform practice. The SDO Fellowships represent a novel way to seek to address knowledge mobilisation and capacity development amongst NHS managers. It is however critical to better understand whether and how

interventions of the design of the SDO Fellowships work, and to explore how they could be further developed. This is more urgent given the opportunity cost associated with the scheme: Fellows on the research projects cannot fulfil all their management duties. Ensuring their efforts are put to best effect is vital to the future success of the scheme. As the Fellowships are new and emerging, an early evaluation can provide timely insights.

The Fellowships have the potential to provide a rich educational experience and the power to make a difference to professional practice and, in the NHS, to patient care. Whilst theoretically plausible, an evaluation is needed to understand what is achieved in practice and to ensure learning from the scheme can be fed into immediate and future developments. A particular strength of this evaluation design is the importance it attaches to close collaboration with the Fellows and the Chief Investigators (CIs) of the projects and consultation with the Advisory Group and wider stakeholders. This approach is especially relevant to a new initiative which has staggered start dates for the Fellows: although time constraints do not allow for too much lassitude over when the Fellows are consulted (they cannot, for example, all be interviewed at a fixed point in their employment on the project), the approach does mean that emergent findings can be acted upon by the SDO organisers without delay.

The Projects

We know now that eight Fellows will be in place by the proposed start date of the evaluation (September 2010). The eight projects are all located within the Management Practice section of the SDO programme and the CIs are based in universities across England and Scotland: Manchester, Oxford, Warwick, Cranfield, Kensington, London (2) and Edinburgh. The employing organisations of the Fellows include both primary care (PCTs) and hospital NHS Trusts. The central participants also vary across the projects and include managers of allied health professionals, middle and front line managers in acute care, middle and junior managers in various healthcare organisations, managers and clinical-managers. Most designs include case studies and adopt interpretative methodologies. Most projects centre on the experience of managers, the relationship with performance and some specifically focus on how knowledge and research informs practice. Clearly Fellows will very directly complement the aims of some of the projects and the evaluation team will be careful to supplement (through critical, external evaluation), not to duplicate the work of the projects. Most of the projects are expected to run for about 24 months although one is planned to run for 34 months and another for just 12 months. The start dates for the projects vary from January 2009 to January 2010. Thus, at the scheduled period for meeting Fellows in this evaluation, some will have been in place for 23 months and others for half that time or less.

All this variation adds complexity to the evaluation and demands a formative approach.

Aims

The aim of the project is conduct an external formative evaluation the SDO Management Fellowship scheme. This is a new knowledge mobilisation and capacity building initiative designed to enable practising NHS managers to become directly involved in large-scale SDO funded research projects. In particular this evaluation aims to provide rich, deep, contextualised descriptions of the dynamics, processes and emergent properties and diverse impacts of the Fellowship scheme in its early days in order to support its future development.

The specific research questions that will be explored in this evaluation are grouped under three objectives.

1. To describe the processes and dynamics of the Fellowships and identify lessons for the future.
 - Why did some research teams respond to the opportunity to apply for a Management Fellowship and others did not? Why did individual managers put themselves forward? How is the involvement of the Fellow negotiated and established? What were their expectations and how have these been met so far? What are the main lessons learned?
2. To explore the impact of the Fellowships from the view of all participants.
 - In their opinion, what impacts have the Fellowships had on (a) the Fellows, (b) the chief investigators and research teams, (c) the host health care organisations and patient outcomes and (d) the wider local health care economy?
In particular, in what way do Fellows contribute to projects objectives? What are the main benefits and challenges? Have attitudes and practice changed? Has the knowledge and skills helped the managers address the research-practice gap and increased the impact of research on management decision making? Have the Fellows been enabled to build research active organisations? Have linkages between researchers and managers, beyond the specific projects, improved? How do the Fellowships impact on the Fellow's managerial roles and workplace? How can benefits be sustained and challenges overcome?
3. To review the Fellowship scheme as a whole and identify recommendations for improvement.
 - In relation to the scheme's objectives, what general conclusions can be drawn about the impact of the programme overall? How might the scheme be improved for the future?

The emergent findings will be taken to a consultation workshop of stakeholders, to validate the findings and identify key messages the future development of the scheme. The final report will provide a formative evaluation of the success of the scheme and what has been achieved and will identify emerging issues and lessons learned.

Frameworks

The work proposed is informed by a "theory-based evaluation" approach, best suited to an emerging initiative (20). The approach has advantages over more traditional approaches: working closely with stakeholders, it focuses on context and mechanisms and considers how these might relate to outcomes. It allows any negative unintended consequences to be recognised and remedied early. Because the Fellowships are new, impact data will be "soft". It is not (yet) appropriate to assess the Fellowships against hard performance and outcome data. We are proposing to use Kirkpatrick's (21) model of programme evaluation to structure and guide the data gathering and analysis. This framework uses four levels to evaluate programmes, mirroring directly the questions of interest to the SDO. Level 1 is concerned with assessing the participants 'reaction' (attitudes, satisfaction) to the programme: for example, what were Fellows' expectations and have they been met? Level 2 is about 'learning' (knowledge and skills): for example, do Fellows report increased research capacity? Level 3 focuses on 'behaviour' change (impact) and the extent to which new learning is applied to practice: for example, as a result of the Fellowship, do Fellows (plan to) change their practice as managers? Level 4 looks at 'results' exploring whether organisational performance (and ultimately patient outcomes) is improved. In addressing

our objectives 1 and 2, we aim to collect data at levels 1 to 3 and impressionistic data at level 4 which broadly falls outside the scope of this evaluation.

Although Kirkpatrick's model was devised for programme evaluation in business settings it has been widely and successfully applied to programme evaluation other education and training settings. However, we are cognisant of the model's limitations. Impact is complex. As is the context for this evaluation as it is focused on the interface between policy, management and academic research. The model does not take into account other contributory factors that influence learning, behaviour or organisational success. Such factors include motivation, culture of learning and change within the workplace, support and availability of resources, tools and equipment (22). The motivation of participants to learn and subsequently transfer new skills and knowledge to the workplace should be considered (23) and this is something that will be explored in our research.

Some commentators are critical of the implied causal relationships between the four levels, arguing that there is no direct link between the levels and that they are more like 'intuitive stages' than anything more robust (22, 24). More specifically, within level two, some have been critical of the lack of differentiation between learning skills and learning facts (25). The interpretation of "learning" within the model is criticised as being uni-dimensional. Higher orders of learning such as procedural (how) and structural (organisation of knowledge) are missing and the model focuses only on declarative knowledge (26).

A further weakness of the model is that although it might be used to evaluate whether training is successful, it omits the 'why' question and what happens to the trainee after the training is at least as important to job performance as the training itself. Brethower (27) also suggests that the workplace environment should be analyzed and restructured, if needed, to ensure that employees are able to use the skills acquired through training.

Despite these limitations, the model provides a useful framework for ensuring a focus of data collection beyond immediate post course evaluation. Given the focus on knowledge mobilisation, we will be interested in higher order impact levels within Kirkpatrick and seek to address some of the limitations in our proposed data collection which includes exploring motivations and data collection with workplace colleagues.

Design and User Engagement

Given the newness of this initiative, the small number of Fellows in place, and the formative requirements of the evaluation it is appropriate to adopt an ethnographic approach (28). This approach is particularly well suited to situations which are not well understood, where existing literature is scant (29), and where the views of the respondents are of paramount interest. The theory-based evaluation approach places the stakeholders – the Fellows and their colleagues – at the centre of the research and evaluates the Fellowship scheme from their perspective. A case study design is proposed. At the centre of each case-study is the Fellow, surrounded by their colleagues. All projects eligible for a Fellow at the start of the evaluation will be invited to participate in the study. We will work closely with the Fellows (currently n=8), the research teams and their host organisations, exploring perceptions and experiences and consulting on emerging findings. The case studies will be used to illustrate and draw out common themes and general lessons: the aim is to evaluate the programme, not individual Fellows.

The proposed research design necessitates active cooperation from SDO Fellows and their colleagues throughout the project. It aims to give them voice and to capture their

experience and learning in a way that allows early reporting and remedy if appropriate, and to ensure that their experiences are used to inform programme design. Our previous experience with doctors and dentists, suggests that the being interviewed by the evaluation team often encourages participants to reflect on their own learning and make positive changes in their placement (e.g. (30)). It is our intention to feed back and validate our recommendations with stakeholders through a workshop (31). This will provide participants with an opportunity to correct errors, to hear more about other's experiences, and to engage participants in developing recommendations. It will also provide opportunity to engage with Fellows who have been appointed more recently.

Methods

The research questions will be addressed using an ethnographic approach (28) within a case study design and data will be collected principally from semi-structured interviews, observation and questionnaires (which will include some open-ended questions).

The work will be undertaken in five stages (see time plan).

Stage 1

The first stage represents a preparatory phase. As the Fellowships are new we plan to engage in a dialogue with programme designers and participants throughout the project to assist the early resolution of any issues. As part of our project management, we are proposing to set up an Advisory Group, through discussion with the SDO Management Fellowship programme designers. The Advisory Group will help ensure work is relevant to the SDO programme's needs and interests.

This preparatory phase will also be used to review project documentation and associated literature, gain appropriate research ethics and governance approvals and draft participant information sheets, interview schedules and questionnaires.

Stage 2

To explore questions of process and impact, all the Fellows and the Chief Investigators (CIs) of the projects will be interviewed face-to-face in the project settings. Interviews will be semi-structured. This provides a flexible approach which allows respondents to offer their own perspective and raise issues most salient to them, at the same time as providing a way of gathering more structured responses to allow comparative analysis of cases (29). The case studies will be of Fellows and the associated projects and the core respondents (Fellows and CIs) will be interviewed face-to-face. This is intended to build a relationship with the evaluator and will provide a rich picture of experience.

The work of the Fellows will also be observed to understand better the contribution and role they have in the research projects. The intention is that the evaluators will spend a week with each project interviewing and observing¹. This time will also provide opportunity to consult with other members of the research team. In this part of the qualitative enquiry we will be flexible and responsive to events, arranging further interviews and/or observation in the pursuit of better understanding.

¹ The two additional Fellows that have come on stream since the initial submission of this proposal will be included in the evaluation but, in the context of not increasing the budget, our engagement with these will be more light touch, spending less time on site observing but conducting the main interviews.

In this stage also, in further exploring motivations to take part (or not) in the scheme, those CIs who chose not to apply will be interviewed. These interviews will be conducted over the telephone as an efficient means to access these others. Telephone interviews are efficient as they do not require travel time or costs, tend to be shorter, more focused, and are considered to be particularly suitable for contacting busy people (29, 32).

Questions that will be explored include: Why did research teams respond or not to the opportunity to apply for a Management Fellowship and why did individual managers put themselves forward (intrinsic and extrinsic motivations)? How is the involvement of the Fellow negotiated and established? What were their expectations and how have these been met? What are the Fellows learning? What are the training needs of the Fellows? What impacts have the Fellowships had on (a) the Fellows, (b) the chief investigators and research teams? In particular, in what way do Fellows contribute to projects objectives? What are the main benefits and challenges? Have attitudes and practice changed? How can benefits be sustained and challenges overcome?

With permission, interviews will be recorded to assist accurate recording of responses and reliability of analysis.

Data analysis, employing the frameworks outlined, will be undertaken within each stage of data gathering (see below). Towards the end of this second stage, emergent findings will be discussed at a meeting of the Advisory Group.

Stage 3

Telephone interviews will be conducted with the Fellows' workplace line managers to explore the impact of the fellowship on the organisation. The aim of these will be to explore the impact (positive and negative) of the Fellowships on the workplace. Walter's (33) review of research partnerships notes a number of potential drawbacks of such programmes relating to the time and commitment required. It will be helpful to the development of the Fellowships to understand what, if any, are the issues faced by employers in order for any negative effects to be anticipated and managed in future.

Interview responses will be used to design a web-based questionnaire to seek the views of the wider group of colleagues both from the project teams and from the Fellows' workplaces. This will provide an efficient means of gathering the views and opinions of a wider group (29).

Questions that will be explored in this stage include: What impacts have the Fellowships had on research teams, the host health care organisations, patient outcomes and the wider local health care economy? What are the main benefits and challenges? Have attitudes and practice changed? How can benefits be sustained and challenges overcome?

Stage 3 also includes time for an analysis of the data collected within this phase as well as addressing objective 3 which is about assessing the overall success of the scheme and the extent to which it meets the programme objectives. This will include evaluating whether the Fellowship scheme (a) improves the quality and relevance of the projects, (b) develops capacity in the managerial community, and (c) enhances linkage and exchange between research and practice. All these three aspects will be explored in the interviews, observation and questionnaires. In addressing the third objective of this evaluation, an overview of the data will be taken and a judgement made on the success of the scheme in improving the research projects, developing capacity and enhancing knowledge exchange.

Stage 4

The focus of stage 4 is consultation: with the Advisory Group again and with the stakeholders through a workshop. A central element of our consultative approach will be the workshop event which will bring together the different stakeholders (Fellows, CIs, managers). The event will be used to facilitate a two way exchange: the evaluation team will present emergent findings to which the workshop participants can respond and develop recommendations for the future development of the scheme. It will also provide a suitable opportunity to engage with new Fellows who have taken up fellowships since the submission of this proposal.

Stage 5

Stage 5 is the reporting phase. A draft of the full final report and briefings will be prepared. These will then be subject to the RAND quality assurance process. In addition, the aim is also to draft two papers for publication (see Dissemination below).

Analysis

It is proposed that data will be analysed using a "framework analysis" approach (34) designed for applied qualitative research. It makes use of a thematic template, in this case the Kirkpatrick model supplemented with themes emerging from the data, and analysis matrix which organises empirical responses by theme and case-study (35). This supports reliable and systematic coding of interview themes, and allows efficient and accurate comparisons of cases (35), and association between process and outcomes. Analysis will focus on improving understanding of all the cases, and drawing out lessons as specified in the research questions. Data will be analysed at the end of each phase. Results from the reviews and case-studies stages will be used to inform the design of the questionnaire used in phase 3. Ongoing analysis will also help provide timely feedback and ensure the evaluation is meeting the needs of the users. This will be drawn together to form a draft report for consultation at a workshop.

Research Governance and Ethics

Appropriate ethical approval will be sought (from the CI's organisations) although it is anticipated that the work will not pose ethical issues and be classified as 'service evaluation'. Consent to participate will be sought. All data will be held confidentially and reporting will be anonymised.

Time Plan

Conducted in 5 stages, all work will be completed in a 12 month period from September 2010. The first stage (months 1-2) is set up: document review; preparation of information sheets, draft data gathering tools; research ethics/governance; initial meeting with Fellowship scheme designers and establishment of Advisory Group. The main activity in stage 2 (months 3-6) is the case-studies: face-to-face interviews with Fellows and CIs, observation and further interviews. The telephone interviews with CIs outside the scheme will also be undertaken. Time will be given to data analysis and dialogue with Advisory Group. Stage 3 (months 7-8) focuses on the wider group and includes telephone interviews with workplace line managers; questionnaires to workplace colleagues and members of research teams; and data analysis. During stage 4 (month 9-10) the report will be drafted and discussed at the workshop and with the Advisory Group. In stage 5 (months 11-12) the full report and briefings will be drafted and subjected to quality assurance processes and

papers prepared.

The time plan is summarized in the table below.

Stage	Main tasks and outcomes	Time period
Set Up	Document review and analysis Preparation of information sheets, draft questionnaires and interview schedules Research ethics/governance Initial meeting with SDO Management Fellowship programme designers and establishment of Advisory Group	Months 1-2 (Sept-Oct)
Case-study	Telephone interviews with CIs outside the scheme Face-to-face interviews with Fellows and CIs Observation of Fellows and further interviews Data analysis Dialogue with Advisory Group	Months 3-6 (Nov-Feb)
Questionnaire	Telephone interviews with workplace line managers Questionnaires to workplace colleagues in host organisations and members of research teams Data analysis	Months 7-8 (Mar-Apr)
Draft Reporting and Formal Consultation	Draft report Dialogue with Advisory Group Workshop	Month 9-10 (May-June)
Final Reporting	Preparation of draft full report and briefings Report validation/quality assurance Paper preparation	Month 11-12 (July-Aug)

Outputs and Dissemination

Final published outputs will include a 500 word executive summary and 2000 word research summary setting out policy, managerial and practice implications; and full report and technical appendix on completion of the project. The evaluation report, with case studies will:

- Enhance understanding of motivations and the appeal (or not) of Fellows to project teams and clarify the circumstances under which the scheme best works (e.g. project types, Fellow characteristics, roles and contributions).
- Report on the learning gains of the Fellows and their training needs.
- On the basis of participant perceptions, identify the impact of the scheme: on the Fellows and their managerial work; on the projects and research teams; on healthcare organisations; and the wider healthcare economy.
- Report on the extent to which the scheme contributes to its three programme objectives.
- Make recommendations for the improvement and sustainability of the scheme.

Other outputs will be designed to inform different groups. Presentations to participants (the Fellows, host organisations and project teams) will provide an overview of emergent

findings, as part of a consultation process. Short research briefings aimed at managers will focus on ways to address the research-practice gap.

We would anticipate submitting two papers to scholarly journals in order to add to the evidence base, which the Call notes (p. 4) is currently thin (33, 36). SDO Fellowships provide a novel intervention which will be of interest to policymakers internationally. The exact topics will be determined by the findings but likely papers include one that describes the Fellowships and their impact and another that explores the wider contribution of the scheme to the research-practice gap. To assist in wider dissemination, we expect to submit conference papers to the Health Services Research Network and the NIHR SDO conference, and the International Conference of Evidence-Based Health Care Teachers & Developers.

Research User/Patient Benefit

The study is designed to make a substantial contribution directly towards evidence-based management in health care by providing rich formative evidence to help the Fellowships realise tangible benefits to practitioners and patients through service improvements. The more proactive engagement with management around research evidence has the potential to lead to improved uptake of evidence to the potential benefit of patients through improved management and clinical practice.

The Team and Costs Justification

The applicants have a wealth of experience in completing funded projects to time and seeing the work disseminated through presentations and publications. Bullock's research interest is education of health professionals, specifically the impact of education on workplace practice. Morris researches and publishes on professional development and evidence-based practice (37, 38). Both have experience of a diversity of research methods, including case study, interviewing and questionnaires. Both have evaluated new professional development programmes in healthcare (30, 39, 40).

The applicants, Bullock and Morris have worked together successfully before. In this evaluation, Bullock will take overall responsibility for the management of the project and, as co-applicant, Morris will play a central role in co-ordinating data gathering across the case studies. Both Bullock and Morris will develop and apply the evaluation frameworks. Both will contribute to the data gathering but will be assisted in this by the Research Associates, Atwell at Cardiff and Tony Starkey at RAND. Specific expertise from RAND will contribute to the design of the web based questionnaire. Bullock and Morris will be responsible for drafting the report and leading the dissemination strategy. The excellent RAND quality assurance processes will be followed in the preparation of the final report which will be subjected to high level review.

The project has been designed with efficiency in mind and costed to enhance value for money. In costing travel, modes of transport have been compared and a balance sought between expense and convenience. Although the staff costs at RAND appear higher than those at Cardiff, they reflect relative difference in salary structures, pay and what needs to be covered in indirect costs and overheads. Cardiff University is a Higher Education Institute and RAND Europe is a not-for-profit registered charity.

The applicants are experienced researchers who regularly undertake funded evaluations. Bullock has much recent experience of evaluating novel educational programmes. Recent and current examples include the formative evaluation funded by NHS Education South

Central (NESC) of a new educational programme for recently qualified dental therapists; and a study funded by the Committee of Postgraduate Dental Deans and Directors (COPDEND) of Deaneries' approaches to the assessment of overseas (outside EEA) trained dentists seeking to work in the NHS. Both adopt case study designs, use interviews and questionnaires and are intended to inform future policy and practice.

Based at Cardiff University's School of Social Sciences, Bullock is well placed to benefit from links with the ESRC Centre on Skills, Knowledge and Organisational Performance (SKOPE) which, for example, analyses motivations for education and training and can inform understandings of participation in the Fellowship scheme (41). Through close collaboration with the Wales Postgraduate Deanery, Bullock has direct access to policy makers and practitioners. She is currently engaged in an analysis of the impact on education and training of the NHS restructuring in Wales. Through such study she is able to develop a richer understanding of policy, organisational structures and the effect these have on provision.

Morris is engaged in two research projects designed to generate and evaluate evidence for policy and decision-making in health and other areas. Both use case study designs, interviews and questionnaires, and are intended to inform future policy and practice. One is part of the Research into Global Healthcare Tools (RIGHT) initiative and focuses on the engagement of healthcare practitioners with experts in modelling and simulation to help improve healthcare management. The other includes PhD supervision of a study designed to generate evidence on overcrowding reduction techniques in the Emergency Department in Cambridge. She also contributes to a range of research projects at RAND Europe many of which relate to health research innovation policy. Many RAND Europe clients are interested in getting research and evidence into practice (e.g. NAO, Cancer Research UK, Arthritis Research, and Department of Health). Morris helps run a DH-funded research centre for health research policy at RAND Europe. This provides research on comparative health research systems and produces reports on trends in health research systems, with the aim of supporting policymakers internationally to develop effective health research policy. In addition, she teaches research methodology and evidence-based policy at the University of Cambridge.

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