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Using impact research to judge the success of a workplace-based postgraduate programme.

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Abstract.

This paper reports on research which has been conducted to assess the impact of a professional development programme for supervisors and trainers on their knowledge and practice of clinical and educational supervision within the workplace. The context of the postgraduate programme is outlined, before the challenges of conducting impact research are identified. The results from a questionnaire and from semi-structured interviews are presented, which indicate the impacts the programme appears to have made on clinical supervision in the workplace. The paper concludes by recognising some of the limitations of the research, and by outlining plans for future research into this programme.

Summary.

The paper reports on research using both questionnaires and interviews to focus on the impact of a staff development programme for doctors who are involved in clinical and educational supervision in the workplace. The challenges of conducting impact research, and the potential for further research in this important area are discussed.

Using impact research to judge the success of a workplace-based postgraduate programme.

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Introduction.

This paper focuses on the difficult topic of trying to assess the impact that a postgraduate professional development programme has made on the practice of teaching/ training within a large Medical Deanery in the North West of England. After describing the context within which a postgraduate certificate in workplace-based postgraduate medical education has developed, and outlining how the programme is delivered, the paper reviews some of the challenges of attempting to carry out impact research into the effectiveness of a professional development programme.

It then turns to an outline of the methodology the programme has used so far to collect data about the impact of the modules, before presenting the data which has been collected by an online questionnaire survey and by a series of in-depth semi-structured interviews with participants. After analysing and discussing this data, the paper concludes by reflecting on further research methods which could add further depth and colour to our conclusions about the impact of this programme on practice in the work-place.

The Context.

In the United Kingdom, Postgraduate Medical Deaneries have the responsibility for overseeing postgraduate medical education and training, including the organisation and implementation of speciality training delivered in hospitals within their region. As part of their role they are responsible for the quality management of doctors who deliver and assess medical education in

clinical settings. National Standards for trainers have been established which all Postgraduate Deaneries have to meet. (GMC 2011). The standards have been introduced at a time of change within the context of clinical practice in hospitals. The changes have included the reorganisation and merger of some hospitals; the introduction of new curricular, e-portfolios, and in particular, workplace based assessment; and the challenge of implementing the European Working Time Directive – which limits the number of hours junior doctors can work. These changes have brought pressures to teach/ train smarter and better.

The North Western Deanery covers a large part of North West England and has responsibility for over 4,000 postgraduate trainees. (NWD 2012a). When the National Standards were set out, the Deanery identified the knowledge and skills that matched three main levels of postgraduate medical educator roles. These roles have been identified as Clinical Supervisors (including senior speciality trainees who take on elements of this role); Educational Supervisors (who are responsible for overseeing a trainee's educational progress over a period of time); and Educational Leaders (to include Training Programme Directors, Directors of Medical Education, Heads of School, Postgraduate Tutors and Associate Deans). (for further information about these roles see NWD 2012b)

The Deanery had been engaged in running a range of faculty development events, workshops and conferences to support these educators. These were often described as "training the trainers" events. However in 2008, the Deanery decided to adopt a radical solution to training their educators. This involved a plan to identify and train all senior specialist

trainees, who were within a couple of years of being appointed Consultants, as Clinical Supervisors. They would also offer similar training to existing consultants. To achieve this target – they would enter into a partnership with a University to develop a series of three modules on clinical supervision, educational supervision and educational leadership, which would together comprise a Postgraduate Certificate in Workplace-Based Postgraduate Medical Education. Doctors who completed the programme would not only be recognised by the Deanery, but would have an academic qualification which was transportable to other parts of the UK.

Following a competitive tendering process, Edge Hill University entered into a three year contract with the North Western Deanery in 2009 to develop and deliver this training. Because the participants were busy medical practitioners, the programme was designed to be delivered by blended learning. Thus for each module – there would be limited face-to-face contact (three or four day or half-day workshops), with the majority of the learning material and learning activities being carried on online within a virtual learning environment. (for further information about the programme see NWD 2012c). Maximum flexibility was built into the programme to allow participants to complete the modules and certificate either on a “fast-track” or over a more lengthy period. There was also the opportunity for participants who completed the programme and who were committed to medical education to proceed further onto an MA programme in Clinical education already being run by Edge Hill University. Edge Hill University had considerable expertise in this area having been delivering a similar programme with the Mersey Postgraduate Deanery since 1999. (Sackville et al 2006) The collaborative

process of designing, developing and delivering the new programme was presented at the IUT conference in Bielefeld in 2010 (Sherrat & Sackville 2011).

The Challenge.

The programme from the commencement incorporated an agreement that it would be evaluated. The Deanery was keen to know what impact the programme was having on the actual practice of training and supervision in the hospital workplace. This would determine whether resources could be found to support the continuation of the programme after the initial three years. The University tutors were anxious to know how the programme was being received by both the junior doctors and by their supervisors.

The challenge for the researchers was to identify and collect evaluative evidence which satisfied the two thrusts:

(a) evaluating the programme – how were participants experiencing the programme? Did they see it as helpful? How could it be improved? and,

(b) assessing the impact of the programme – was it making a change in the practice of supervision and training in the clinical settings?

This paper focuses on this second thrust – what effect was the programme having on the actual practice of supervision and training? What was its impact in the workplace?

Impact research is a challenge, although in times of economic recession and “cuts” the agencies which finance professional development for their staff are increasingly interested in this topic. How do you discover whether a staff development programme is having an effect on the actual practice of supervision, training and teaching?

Garbarino and Holland, in a study of the impact of UK overseas aid, have argued that there are at least five different dimensions to the concept of impact. Impact may be positive and/or negative; primary and/or secondary; short-term and/or long term; direct and/or indirect; and intended and/or unintended. (Garbarino & Holland 2009). In their discussion of impact evaluation they identify the preference of traditional researchers to try to mirror the randomised control trial, often used in medical research, but they argue that there are many dilemmas in evaluating impact which are not amenable to quantification – such as “trust”, “respect” “governance” and “empowerment”, and they argue strongly for using mixed methods of research and for the synthesis of data collected from both quantitative and qualitative approaches.

There are methodological challenges of collecting such data, and the positive and negative aspects of different methods of data collection have been well documented. For example a paper by Berk, outlines some twelve strategies of collecting data, ranging from self-evaluation and peer ratings to ratings by employers, administrators and alumni. As with many similar papers, Berk argues for the need to use multiple sources of evidence and to triangulate these. (Berk 2005).

More recently the debate about impact research has widened to challenge what has often been seen as the “process – product” model of professional development. This model suggests that changes in practice can actually be firmly tied down to a single educational experience (e.g. a training programme). This model has been criticised from two different angles.

Desimone has argued that there needs to be a better conceptualisation of professional development. She identifies five characteristics of professional development which recent research has suggested are critical to increasing the knowledge and skills of teacher in their practice. These are (a) content focus, (b) active learning, (c) coherence, (d) duration, and (e) collective participation. Each of these characteristics is discussed; before the paper goes on to examine the implications of adopting such a model of professional development for the selection of the research methods necessary to collect the data about these characteristics. Not surprisingly she suggests the need for a range or battery of data which would be needed to assess the impact of professional development (Desimone 2009).

The second paper which criticises the "process-product" model, commences from the premise that researchers have employed simplistic conceptualisations of teachers' professional learning, and have failed to consider how learning is embedded in professional lives and working conditions. Opfer and Pedder argue that many researchers have viewed professional development through a "serial" and "additive" lens – for example, x leads to y, and when z is added, y is improved. This model underplays the complexity of real life, and Opfer and Pedder carried out a comprehensive review of various impact studies to identify the different influences which may affect learning in the work setting. They concluded that the research they reviewed recognises "the overwhelmingly multicausal, multidimensional and multicorrelational quality of teacher learning and its impact on instructional practices" (Opfer & Pedder 2011 p.394). This in turn has implications for the conduct of impact research which needs to take account of a wider range of

variables than might be required in a simple process-product model. (Opfer & Pedder 2011).

In developing an impact research for our own programme, we have been conscious that we needed to avoid a simplistic process-product model, and we needed to explore wider dimensions of the work setting in which supervision and training was practised, as well as the different experiences of individuals and groups involved in the training programme.

Methodology – Collecting data.

We have been using three major methods of collecting data:-

(a) An online questionnaire.

(b) In-depth semi-structured interviews with a sample of participants

(c) “Naturally occurring evidence” which could be analysed.

The online questionnaire was constructed using the Bristol Online Survey and comprised 17 questions (for information about the Bristol Online Survey – see BOS 2012). The initial three questions collected information about the background of the respondents. These were followed by four open-ended questions which allowed the respondents to comment on the effect that studying the first module, which focussed on clinical supervision, might have had on their own learning, their role as a clinical supervisor, and their broader professional practice. The next eight questions asked the respondents to use a five point scale to record the value or otherwise of eight components of the module. The penultimate question asked for their likes and dislikes about the module, as well as encouraging them to make suggestions for improvement, whilst the final question asked them to indicate if they intended to continue studies in medical education in the future (either completing the present

Postgraduate Certificate and/or going on the study the Masters degree in Clinical Education provided by the University). The questionnaire was circulated electronically to all those students from Cohorts 1 & 2 who had successfully completed the Module. The students received the questionnaire between 6 months and 18 months after completion of studying the module. 67 completed questionnaires were returned, producing a very satisfactory response rate of 42%. All grades of doctors eligible for the programme and a wide selection of specialities were represented in the sample.

The second method of data collection involved an independent researcher conducting a semi-structured interview with a sample of 15 of the 160 students who had completed the module by the summer of 2011. The interview covered both the experience of studying the module and the impact of the module on practice. The sample population was constructed to represent both the first and second cohorts who had studied the module; to reflect the trainee and self-funded consultant split; to represent a range of different medical specialities and to represent an appropriate gender balance. The average interview lasted 30 minutes (range 20-45 minutes) and the interviews were carried out over the telephone (the preferred method chosen by the sample).

The third method of collecting data revolves around what can be described as “naturally occurring evidence”. This refers to the records and artefacts produced during the learning process which can be analysed to determine both evaluative and impact data. Examples include – the immediate evaluations carried out on the actual face-to-face days; the records of the online discussions of the students and their interactions with online tutors

(these include their responses to set online activities); the assessment artefacts produced by the students (in this case – the production of individual teaching philosophies, and their reflections on the process of peer observation of teaching – both observing a colleague and being observed in the supervision/training process); artefacts produced in other contexts by participants – papers, posters, presentations made to medical meetings/ journals; and feedback from supervisors and managers of participants on the programme. All these types of evidence do have issues in using them in an analysis of impact, for example are they a true sample? – but they can be used alongside more regularly collected data, and they often provide dramatic examples of the impact of the programme – for example when two of the participants produced their own guidance on how to get the most out of the programme for circulation to new and intending students. We are still at an early stage of analysing and evaluating this type of evidence, but it links in with our general research strategy outlined elsewhere. (Sherratt & Sackville 2007)

All three methods have been used to collect evaluative evidence about the experience of studying on the programme, as well as impact assessment of any changes in practice as a result of the programme.

Evaluative Evidence.

It is not the intention of this paper to present a mass of evaluative evidence, but it is important to give a flavour of this evidence since this sets the context within which the impact evidence was collected and analysed.

The online questionnaire revealed that all aspects of the programme delivery were rated positively by the respondents. There was a high level of

support for the face-to-face sessions, the quality of the online material presented, and the aspect of the assessment which focussed on peer observation of training. More respondents were equivocal in their support for the use of a personal philosophy of teaching as an assessment tool, and the value of the online discussion forum, although the majority of respondents were positive in their rating of these. Similarly there was a high degree of general satisfaction with the support provided by academic tutors, clinical tutors, and work colleagues. The open-ended questions provided the opportunity for respondents to identify both their positive and negative feelings about the module. Many of the responses presented a “balanced” view of studying the module – identifying both positive aspects and areas where the delivery of the module could be improved. This in itself is an encouraging feature, since the programme tutors wanted to develop this analytic approach to education and training with the students.

Similarly the evaluative data collected from the 15 in-depth interviews was overwhelmingly positive, although a greater level of detail was obtained, and a series of themes was identified. Blended learning was welcomed by the large majority of the interviewees, although there was less enthusiasm for the online discussion board than there was for the face-to-face days and the online material provided. Blended learning was a novel approach for 14 of the 15 interviewees, and they particularly valued the flexibility in the delivery of the programme. The most positively valued section of the assessment of the programme was the peer observation process; however the writing of a personal philosophy of teaching had been a major challenge, although when completed, the vast majority of interviewees recognised its usefulness in

assisting them to clarify their own ideas of clinical education. Interestingly three of the interviewees commented on how completing the module had affected their relationship with their own clinical/ educational supervisor – an example of the wider impact of the programme – since in two instances the supervisors had now attended a later run-through of the module!

Evidence of Impact.

In the online questionnaire there were three questions which were designed to ascertain the impact that studying the module had had on the respondents. The first question focussed on the respondents' own learning, where 70% of the respondents answered that studying the module had affected the ways in which they learned themselves. The majority who replied positively claimed that they understood their own learning better, and also recognised the differences in how people learn – whether this was in their learning styles, or in the way they organised their learning.

The second question was more focused on ways in which their own practice as educators/supervisors had changed. Four major themes emerged from the responses to this question. The most frequently mentioned theme was the effect of the module on their practice of work-place based assessments**,** and perhaps more significantly, the giving of feedback which arises as a result of the assessment. A second theme related to organised, planned and systematic supervision. This is the impact of the module on the way the participants perceive and organised clinical supervision and support for junior staff. The third theme focused on actual teaching, teaching skills, and specific teaching methods; whilst the final major theme linked an

enhanced understanding of learning styles, with a recognition of the learning needs of different students/junior staff.

The third question asked whether the respondents could identify any impact that the module had on their broader professional practice – for example – had educational issues become more important in their practice? The respondents found this a much more difficult question to answer! Many respondents wanted to acknowledge some impact – but they were keen to stress their pre-existing commitment to medical education. However three themes did emerge from the respondents' comments. The most frequent theme focussed on an enhanced general understanding and commitment to medical education. A second theme related to the ways in which the respondents organised their teaching and supervision, whilst the third theme centred on improved teaching skills which had resulted from studying the module.

The responses in the semi-structured interviews mirrored these themes identified from the online survey. All the interviewees identified four major ways in which they believed their practice had been affected by the module. In addition a smaller number of interviewees identified further ways in which their own practice had been influenced. The four themes, with illustrative quotations are presented below:

Theme 1. The impact on ways of thinking about supervision and medical education.

When reading the transcripts it is clear that the module helped crystallise the doctors' ways of thinking about clinical supervision and medical education in general. Much of the material, and the face-to-face and online

discussion, together with the assessment tasks, were assisting the doctors in reinforcing, justifying, and developing existing supervisory practice. There is frequent use of active verbs and phrases such as “building on”, “consolidating”, “justifying practice”, “organising”, “improving”, “enhancing”, “reinforcing”, “evolving”, “offering a formal structure”, “reflecting” etc.

“It’s sort of crystallised ideas around different styles of learning which I already had, but it’s sort of given them a formal structure rather that being things I was just aware off….so it’s a kind of given justification to why I did the things I did” (Interviewee 1.)

“Well it makes me a bit more aware about options for work-based assessment actually and what we can do within the restricted time-frame we have due to clinical commitments” (Interviewee 7)

“I think previously I was not thinking what I was doing. For example I thought that teaching comes automatically…..I think it’s more clearly structured now. I was doing it with my instincts rather than thinking through the process” (Interviewee 13)

Theme 2. The organisation and conduct of clinical supervision.

A second major theme which emerges from the transcripts is the effect that the module has had on the way the interviewees organise their own practice of supervision. This may involve a heightened awareness of planning for clinical supervision, of identifying opportunities for clinical supervision during the training process, and of conducting clinical supervision is a more overt way.

“I’ve done more workplace-based assessments, kind of spotting an opportunity…. So it’s made me a little bit more aware of kind of identifying

them (sic. learning outcomes) *and making the most of opportunities where they exist."* (Interviewee 1).

"In clinical practice I stop and ask more questions of the trainees prior to telling them the answers so if they ask me for assistance with a practical procedure for instance then I will talk to them about what they understand about the procedure beforehand, what they've tried already, why they think it didn't work and then I will go through different strategies during the procedure and then I will discuss outcomes with them a little more so you know – you reinforce their practice" (Interviewee 2).

"*I think it's made me more aware that you can get more sort of opportunities for learning, sort of opportunities and sort of supervising rather than anything else…if there's a particular situation where it lends itself very well to a sort of teaching opportunity or you can review what your junior is doing, I sort of try and make more of an opportunity of that now. I think its made me more aware of what to observe really."* (Interviewee 6).

"Having a better sense of what I need to do and a direction of what I really need to do is something that I've probably gained….I have modified the manner in which I teach – a more structured approach so that each session should run as a continuation to the subsequent session the following week, so basically what I am trying to do is hopefully to maintain the continuity in the learning" (Interviewee 8)

Theme 3. Alternative ways of demonstrating clinical skills.

The transcripts contain many examples of the way in which the doctors have reviewed their practice of demonstrating clinical skills, and have tried alternative methods of demonstrating such skills which they discussed during

Module One. A number also welcomed the opportunity to practice ways of demonstrating clinical skills in the face-to-face sessions.

"I would say that the biggest way it's actually impacted is through the training days that they had and I thought some of the skills that they taught were quite useful for when you're kind of trying to teach procedures and skills to junior doctors and it's a more formalised way of doing it… so I mean I thought there were some skills that had come up on the module that were quite useful for trying to get the trainee to kind of think on their feet about what they wanted to do themselves without just basically asking for advice about what to do." (Interviewee 5)

"*Certainly some of the workshops on you know different ways of doing sort of skills training. We do a lot of simulation training and it's certainly changed the way I deliver that".* (Interviewee 9)

Theme 4. Ways of giving feedback to trainees.

Without a doubt – this was the theme most frequently mentioned within the interview transcripts. The Module had challenged conventional ways of giving feedback to trainees, and presented alternative models for the doctors to discuss and try in their supervisory practice.

"Well the feedback would have been quite abrupt before the course, and now I've got various different strategies to deal with poorly performing trainees and trainees whose clinical skills are below par. I have a lot of different strategies now to feedback positively if you like rather than negatively" (Interviewee 2)

"Feedback certainly is the most important one which makes a difference and it is just so that they have a learning objective at the end. I've

learned how to use the assessment tools and made them an educational activity rather than just paperwork. " (Interviewee 10)

"I'm more aware of feedback and I tend to – my feedback is a lot better….I give them more feedback and also I tend to use the kind of message that we've learned and sort of a bit more positive and the negative is brought in a kind of roundabout manner and it's really constructive now." (Interviewee 11)

"Feedback – I think it's certainly trying to keep it flexible but having a more formal way of structuring it – I guess discussion around what they have done rather than – this is what you did well, this is what you did not do so well." (Interviewee 12)

Other Themes.

Other themes which were mentioned less frequently included:- the value of sharing ideas with other specialities; the enhancement of formal reflection; setting and reviewing learning outcomes; observing trainees' clinical practice; and assessing trainees' overall progress. The following quotations illustrate the broader impact of the module which does not necessarily sit comfortably within either the major or the supplementary themes.

"Yes, I think I've very much changed my attitude towards – you know the work-based assessments and you know, I think we all fell into the traps occasionally previously of taking up so much of our time, so I've very much tried within the constraints of a busy clinical job to try and make it informative and try to prevent trainees just sending me forms to fill out. I like to do it in

person, but that caveat to that is – you know making sure that there is time for that". (Interviewee 4)

"Try and focus a little bit more on the educational value rather than it just being you know checking that the patient's safe and they've done the right thing; and trying to allocate them a little bit more time so that the juniors gain a little bit more educationally from it (making it) a more worthwhile exercise than just a sort of tick box exercise." (Interviewee 14).

Discussion and Next Steps.

The interviews revealed the impact of the module on the organisation and practice of clinical supervision; on the clinical skills demonstration process and on the workplace-based assessment tasks and the feedback deriving from these. All of these impacts have come within the context of a heightened awareness and knowledge of the theoretical and practical nature of clinical supervision. Although this assertion relies on data gathered from the participants of the programme themselves, it is clear that the challenges and impact of the module has remained at the forefront of their mind (and hopefully of their practice) in the twelve months or more since they completed the module, suggesting that there is a longer term impact of the module.

Of course the focus of this research has been on trying to assess the impact of one particular "training" programme on the practice of clinical supervision in the workplace. This has to be set along side the knowledge we already have of the importance of informal learning in the workplace (Eraut,2004) and the significance of the learning environment of the organisation where trainers are seeking to influence practice (Li et al 2008). But if we reflect back on the original five levels of course evaluation proposed

by Kirkpatrick in the 1950s – it is clear that the programme being researched has recognised those five levels and has designed both the actual programme and the associated research to ensure that those different levels were being addressed. Kirkpatrick 1959). For example the experience that an individual has on the programme is evaluated during and after the learning experience; the knowledge they have gained is tested through the assessment artefacts, their online discussion and by in-depth interviews; new skills and behaviours are evaluated by self-evaluation and self-reporting; the importance of changing practice in the workplace is stressed within the programme itself and is evaluated using questionnaires and interviews; and the importance of the learning environment promoted by the organisation is addressed by the development and support of a Deanery Educator Team which works alongside the University team in tutoring and supporting the trainees during their studies.

The impact research is continuing to be expanded through further questionnaires and interviews with later cohorts who have completed the Clinical Educator module, and with participants who have completed all three modules and gained the Postgraduate Certificate. In addition there is a recognition that further research can be carried out into what has been described above as the “naturally occurring evidence”. Finally there is a need to identify further research strategies for measuring the long-term effect of the programme on the behaviours of the trainees as they become trainers themselves. Impact research is a complex process, influenced by a wide range of variables – but it an exciting and challenging process which is of great importance in justifying and developing workplace based teaching and

training in the present environment where resources of time and commitment are under increasing pressure.

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