Becoming good with practice: Teaching the virtues in postgraduate medical education

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Becoming good with practice:

Teaching the virtues in postgraduate medical education

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Abstract

This paper is by a senior surgeon and a teacher educator who together prepare senior doctors to supervise junior doctors. We share here the work we have engaged in since 2003 to develop senior doctors as supervisors who are committed to working in the moral mode of educational practice, and who recognise the significance of exploring their clinical thinking, decision-making and professional judgements, and the ontological aspects of both educational and medical practice, including moral reasoning and the virtues.

In reality, doctors rarely have the time to explore the virtues *as expressed in their own practice*. They do not think about themselves in detail when considering their doctor/patient encounters. We help supervisors to lead their juniors to recognise the person and professional they bring to those encounters and how they 'live' their understanding of the virtues. We are therefore developing towards creating a curriculum for supervisors in PGME that has character and virtues education at its heart, together with a concern for clinical decision-making and the quality of the professional judgement. We also share here some educational resources that we have developed in practice for use in such a curriculum.

Given that doctors have already chosen to join a professional practice that provides 'a good' and which famously requires a commitment to certain virtues, we also ask whether postgraduate medical education (PGME) is a special case as an arena for the development of virtues in a profession.

In offering all this, we seek critique and advice from colleagues to aid the improvement and further development of our work.

Introduction

We had several meanings in mind in shaping the above title. Firstly 'becoming good' allows us to highlight good as a virtue and also to point out that, added to 'with practice', it reminds us that the virtues characterize a perfection that we can only *seek* to 'live', and that we believe that repeating practice as the means of improving it is not sufficient alone, and requires rigorous reflection as part of the learning.

Secondly 'with practice' here is a signal that we are concerned with engaging with the practical! We believe that you cannot teach postgraduate doctors in practice by using theoretical

examples. You have to engage them in exploring the virtues *in their own practice*. While we recognize that simulation does achieve some things, and that moral reasoning can be learnt in seminars through the use of specially created examples, nonetheless for doctors stretched to meet their targets in caring for patients, it is examples from that practice that hook them into exploring these matters seriously. We therefore would question whether — for postgraduate doctors — creating 'ethical clinical scenarios', even though they seem to 'provide a promising approach' to 'developing valid, reliable and fair means to assess doctors' moral character' (see Arthur et al, 2015), are really the best means of so doing *for doctors in practice*.

Thirdly, 'becoming good with practice' is about what we seek for ourselves, as well as about what we are hoping to help postgraduate doctors with. That is why we are offering you something of our own learning journey.

The aims of this paper

Our aim in this paper as DF an experienced senior teacher educator with extensive experience as an educator in PGME and LdeC an experienced clinician and a senior leader of her profession at national level, is to illustrate the trajectory of our teaching and research since 2003. In doing this we share some of our growing understanding that has led us *towards* creating a core curriculum for PGME which seeks to encourage medical supervisors to engage in worthwhile and enriched education in the virtues, moral reasoning and clinical thinking and sound judgement, as opposed merely to offering technical training in knowledge and skills (Fish 2012). We try to promote supervision of young doctors that nurtures the development, of what we call the **'being, doing, knowing, thinking and becoming'** in practicing doctors (de Cossart and Fish, 2005), and which has at its heart, attention to the character and virtues of that doctor as a person and a professional, not just the accruing of more knowledge and skills.

Our intentions therefore are to stimulate discussion as to whether (PGME) might be understood as a special case of the development of virtues within the professions, and also to seek critique, advice and help from colleagues in all the disciplines being brought together around character and virtues education, about whether and in what ways this work might be improved and taken further. In so doing, we have to say that we believe rather in collaboration between theorists and practitioners, and recognize the primacy of practice as one means of development, rather than

seeing theory as the inevitable starting point and the simplistic application of theory to practice as the end result

To this end, we offer brief details of the context and our early starting points, and then illustrate some key stages of our work in developing senior doctors into teachers (supervisors) who are committed to working with junior doctors (supervisees) in the moral mode of educational practice, (Carr 2004; Dunne 2003). We show how we have set out since 2003 to encourage these supervisors to explore more fully their professional judgements and what drives these (de Cosssart and Fish, 2005; Fish and de Cossart, 2007) and more recently to recognise more fully the significance of the ontological aspects of both educational and medical practice (Fish, 2012 and 2015).

Central to this has been the resources we have developed to guide a broadly Aristotelian approach to clinical thinking and how to assess it, (de Cossart and Fish 2005; Fish and de Cossart 2007; Fish 2012; and Fish and de Cossart 2013). More recently we have just published a series called *Medical Supervision Matters*, at the heart of which are resources to help supervisors in PGME to teach and assess the virtues that both they and their juniors bring to their practice with patients (Fish, 2015; Fish, de Cossart and Wright 2015a; 2015b; and 2015d). Some of the ideas from these booklets we seek to share both here and in our presentation.

Postgraduate medicine: The context of our work

We find that postgraduate medical practice is not well understood by those outside it. Inaccurate assumptions are rife about the maturity and needs of members of the medical profession, particularly new graduates. It may be a surprising for some to learn that *two thirds of all doctors in hospital Trusts* are under supervision, and only one third are the wise seniors who teach them (though all doctors are expected to teach those below them)! This means that for *up to* a dozen years after starting their careers (depending on specialty), doctors are supervisees, who are taught and assessed in each and every one of their attachments to various specialties (which will be for four months, six months or a year). And much of this 'teaching' is focused on training not education and currently only requires teachers to attend a two day course of training! It has thus been important news that the GMC will be requiring far more in the way of preparation for the supervisory role as from 2016 (GMC, 2012).

The experiences of and the early journey of the new doctor, whose career is supposed to engage them in professional and personal development as medical practitioners, is often hard, bewildering and confusing, with little in the way of clear direction, particularly in respect of their further education. Even where the Trust they join as an F1 offers a humane welcome, the new supervisee will have already found themselves constrained, even oppressed, by the complex and highly impersonalized national application processes for training programmes, the highly regulated GMC accredited curricula which controls their progress (there are 65 specialty and 34 subspecialty curricula currently listed, all of which are independent of each other). Added to this, even as they seek to find their feet as a doctor, are the legal requirement to prepare for revalidation every five years, and an NHS environment that seems only to value productivity and throughput and with a risk averse ethos (GMC http://www.gmc-uk.org/education/approved_curricula_and_assessment_systems.asp).

The senior doctors who are their supervisors/teachers, also worn down by these burdens, squeeze their PGME responsibilities to the edges of their priorities despite the fact that they have a very significant role in the development of young doctors. The vibrant A* grade students who left school with such motivation to become doctors are, five years later often left to make sense for themselves of the complex clinical and educational environment in which they find themselves on day one of their careers. Increasing disillusionment (closely observed by LdeC as Director of Medical Education over the last five years) manifests itself as 'stress' and a feeling of being in the 'wrong career'. The recent doctor's strike debacle and the huge unhappiness revealed is a symptom of a deep unease in the whole profession.

In the early 2000s the anticipated full implementation in the UK of the legislation for the European Working Time Directive by 2009, alerted us as educators, to the need for better resources for clinical teachers to support them in teaching postgraduate doctors in the clinical setting (http://www.nhsemployers.org/your-workforce/need-to-know/european-working-time-directive). Six years on from this implementation, the state of PGME in the clinical setting is far from doing the best for our young doctors and their teachers. The following two quotations from consultants in Hospitals summarizes this:

> *There is no time in the clinical setting to teach, I just help solve problems.*
> *My teaching is* ad hoc *and short term, unplanned and informed by clinical imperatives.*
>
> (Thomé, 2012)

The broad trajectory of our work

Developing the Clinical Thinking Pathway 2003 - 2005

Our recognition that better understanding and better educational support for the teachers (supervisors) of postgraduate doctors was needed, followed our work at the Royal College of Surgeons of England (de Cossart and Fish, 2004). The findings of an evaluation of the first (ever) curriculum for surgical training (Brigley et al, 2004) found that essential to its success was the need to develop the educational understanding of supervisors and this fuelled the unique educational partnership of a surgeon educator and a teacher educator.

We explored together, via an anthropological research design (see Fish, 2009), over a period of two years between 2003 and 2005, through observation, dialogue and reflection, all the tacit and implicit elements of LdeC's practice as a busy surgeon: her thinking and her human interactions in ward, clinic and theatre; how the person and professional she was affected her practice; how she used her knowledge in the service of patients and how she came to her professional judgements. Thus, we theorized LdeC's practice, guided by DF whose previous work had involved working with consultants, as an education adviser in South Thames Deanery which was reconfigured as Kent, Surrey Sussex Deanery, by observing consultants teaching their juniors in the clinical setting; and also, in a research project, helping professionals unpack their professional judgements in a chosen case which resulted in Fish and Coles (eds), 1998. It is interesting that this publication won prizes in America and was quickly acknowledged by Eraut and du Boulay (2000) as the only book publication in the decade to focus on professional judgement in medicine.

Using DF's basic understanding of Aristotle's view of professional judgement in *Ethics* we pinpointed the processes of both the doctor's judgements that run throughout the patient case at all points *and* the judgements that crystallize the actions (or non actions) at the key treatment stages. We sought to make explicit and provide a language and structure in which to discuss the doctor's thinking. We thus produced a suite of resources that we came to call *The Invisibles,* which we also checked out with a range of other doctors and surgeons and even with a group of physiotherapists (PTs) and occupational therapists (OTs), podiatrists and nurses. (Indeed, the OTs much later began to be interested in these resources for themselves, see Fish, 2011.)

Our educational research led us to identify clinical thinking, decision-making and professional

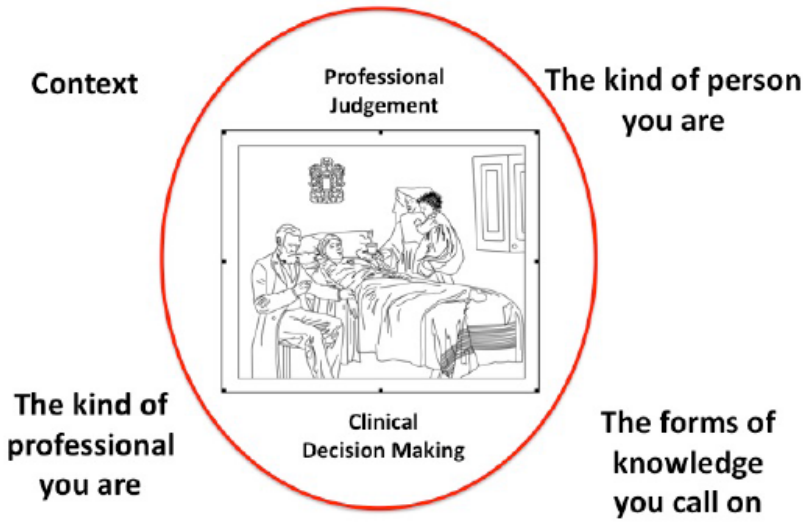
judgement as at the very heart of medical practice, and to understand and begin to create resources to teach about two kinds of component: those that influence and drive the thinking processes (the outside components); and those that are central to the clinical thinking itself (the inside components). All this, of course is invisible, tacit and rarely unpacked in any detail for the benefit of supervisees. In fact, because expert doctors and surgeons work with such fluency and apparent ease, honed by many years of development, this thinking capacity is often *mistakenly* taken to be easy, or is *foolishly* assumed to be non-existent.

The development of these capacities in young doctors has in the past relied heavily on many hours spent in practice and the opportunistic chance of working with a wise senior colleague. But such time is no longer available. Thus, since thinking as a doctor cannot be learned and developed by mere observation and copying, it has to be explored mindfully and with purpose and rigour. The key resources we offer and are using for this are our *Clinical Thinking Pathway* in a process we have come to call *Medical Reflective Practice.* (See de Cossart and Fish, 2005; Fish and de Cossart, 2013). There follows a brief description of these resources and an example of *Medical Reflective Writing (Rainbow Writing).*

The Heart of Clinical Practice and The Outside Components of the CTP

Figure One shows the outside components that we came to recognise as significantly influencial on decision-making and professional judgements. Using these to write about individual case studes in a clinican's own practice (Fish and de Cossart, 2013) the tacit thinking is uncovered. Educational supervisors and their learners have been vociferous about how they have found this process illuminative and powerfully developmental.

Figure One: The Heart of Clinical Practice and The Outside Components of the CTP that drive a doctor's conduct in a specific case



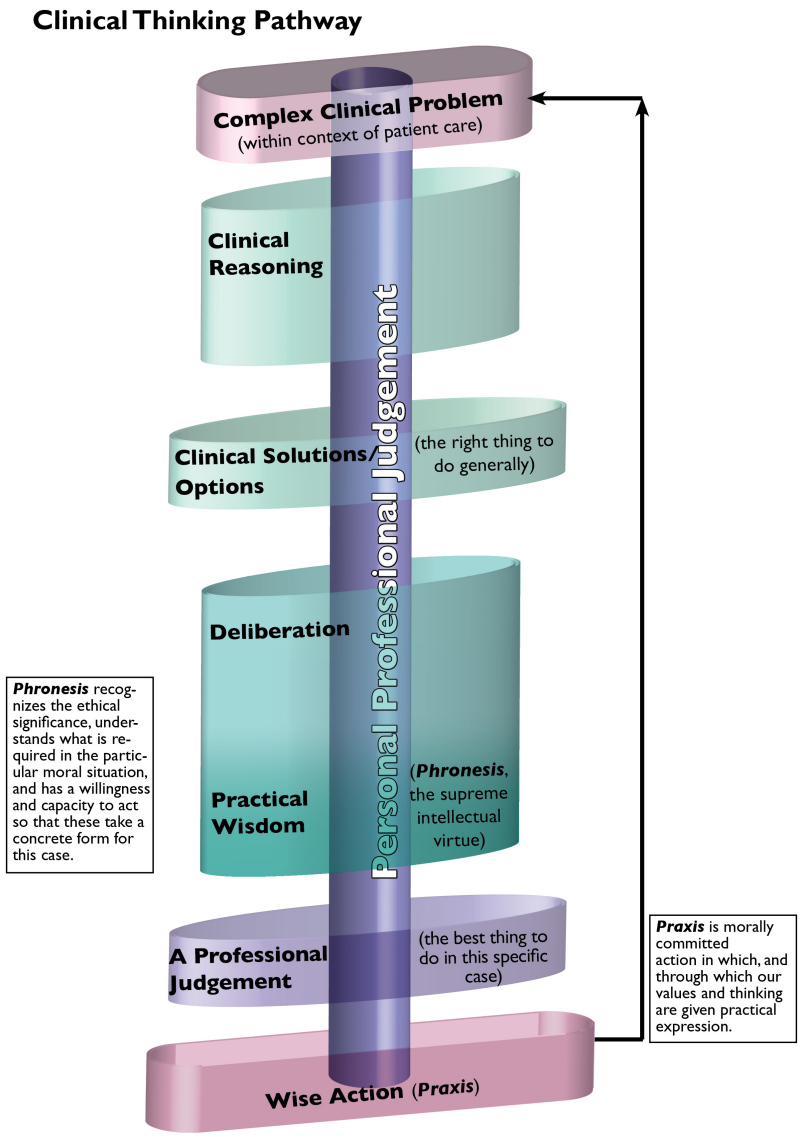
Each of the words/phrases outside the red oval become headings for *reflection-on-action* and the comment and critique about how that element ifluences the doctor's thinking in the case.

The Clinical Thinking Pathway and The 'inside' components of the CTP

Figure Two shows our Clinical Thinking Pathway and the 'inner' components of clinical thinking as found in a specific case. We have identified and characterized six of these: **Clinical Reasoning** (a formulaic process of decision making); **Clinical Solution** (the right thing to do generally); **Deliberation** (the weighing up of equal and valid possibilities for a particular patient case); **Product Professional Judgement** (the decision to engage in the best action in this case); **Wise Action** (morally committed action in the interests of the specific patient) and most importantly **Personal Professional Judgements** (those most tacit judgements made along the whole thinking processes in a particular case) (de Cossart and Fish 2005, 2007 and 2013). The following figured illustrates this.

Figure Two: The Clinical Thinking Pathway and The 'inside' components of the CTP that can be explored in a specific case

(de Cossart and Fish 2005, 2007, 2013)



The first three elements in the model above constitute clinical reasoning and are technical in nature where the doctor tends to follow a formula first learnt in medical school. The bottom four elements we refer to as the deliberative process where the general clinical solution is tailored to the individual patient. This is learnt only in practice. We seem to be the only writers on clinical reasoning that *Personal Professional Judgements* permeate the entire process.

The quality of the professional judgement

Because we recognize that not all judgements are wise, and even that some are hasty and without mature consideration, we have also created the following table to help supervisor and supervisee gauge and nurture the quality of the supervisee's judgement (Fish et al 2015c)

Figure three: Our categorization of kinds of professional judgement

Modified from Fish and de Cossart 2007, 152-3

Kind of professional judgement	Response to patient case	Motivation
Wise Judgement (enlightenment growing and evidenced as confidence and fluency of thought and action)	Sees each case as needing to be enquired into beyond the obvious, defines what is needed for the best for the patient, can do / obtain what is needed, (as a learner checks with senior as appropriate), then does it. Can make rational sense out of intuitive judgement and use pathway both ways up Treats all judgements as potentially provisional and requiring revisiting Able to confidently and with evidence defend the judgement made	Willing and able to put patient's interests first at all times in decision making, even if this risks own interests and position in some way
Maturing Judgement (developing insight)	Open minded to the complexity of each case; builds on experience. Has a proper respect for conservative management but beginning to balance safety of patient with carefully judged risks	Beginning to put patient first in decision making but still lacks experience and confidence to step outside own needs in favour of patient's interests Beginning to see that you can play it too safe
Self-defensive Judgement (need for considerable developmental work)	Selects tactics known to please; and are safe; closed minded about choices. Chooses what fits limited experience rather than seeing the wider context	Choice of decisions and resultant behaviour designed to enhance own performance and achievements in the eyes of the supervisor
Hasty / habitual Judgement (recognition that this is unsatisfactory)	Knee jerk reaction / Going through the motions unthinkingly	Has not even considered that choices are available

It will be noted that the line above hasty and habitual what should be the bottom line for a practising doctor.

The CTP and the above table enable supervisees to place on record as follows a detailed narrative of their thinking in a given case.

Figure Four: An example of *Medical Reflective Writing* (Rainbow Writing*)* by an F1 doctor

Title: An elderly man with memory problems (extract from Fish et al 2015c)

Learner: An F1 doctor

The Colour Code for *Rainbow Writing*: The colours were chosen arbitrarily by us but now the same colour code is always adhered to in order to avoid confusion! The colours help to show how the writing was created and help to facilitate the identification of the elements being explored. The text may be turned into all black for more formal presentations.

The outline of the case is always offered first to the reader in black bullets. These then appear in bold black at the start of various paragraphs that tell the case story. Unbolded black shows new points that could have been part of the outline but were left out. Different colours then attend to different components. This enables a teacher to analyse the supervisee's strengths and weaknesses in thinking about a case and then help to develop these appropriately. The colours are as shown below. For less experienced doctors it would be possible to explore only one or two components, as in the example below.

Context and the kind of person you bring (Blue)
Knowledge (Red)
Clinical thinking (Purple)
Professional judgement (Brown)

Bullet points – elderly man with memory problems

- An elderly gentleman was admitted for deteriorating selfcare and memory problems.
- I devised an action plan including baseline investigations i.e. bloods to screen out chronic disease, ECG, CXR, Urinalysis and physio assessment.
- I identified a provisional diagnosis.
- I met with the son to discuss the physio assessment results.
- I decided the son needed information on the discharge plan.
- I reflected on the case and I became aware of my own emotions in managing this case.
- I sought advice from the Registrar to confirm my thinking about the case.

This is the sort of outline usually given at handover, on a ward round, at a Multidisciplinary Team Meeting (MDT) or at a Morbidity and Mortality meeting. It contrasts with the *Rainbow Writing* that follows in what it reveals about the doctor.

Rainbow Writing

An elderly gentleman was admitted for deteriorating selfcare and memory problems.

I was in my second week as an F1 on a busy day-assessment unit when I was asked to see him. He was brought in by his concerned son and referred by the GP for deteriorating selfcare and memory problems. He was a frequent faller, had no home help and had declined significantly over the last 2 years since his wife died.

I rang the GP to get further background information as the son was unsure of his PMH and DH. This confirmed a PMH of TIA, HTN and hypercholesterolaemia. On examination he was thin, poor self-care, gait was unsteady, struggled to independently transfer. MMSE was 16/30. I immediately felt uncomfortable about this gentleman's level of mobility and felt sure he would have a serious fall in the near future if no intervention was offered. The man's clothes were filthy and he was very

unkempt with signs of weight loss. I felt very nervous at the thought of him going home from the day-assessment unit to his home where he had no social support and the son was off on holiday for 2 weeks in a couple of days time.

I devised an action plan including baseline investigations i.e. bloods to screen out chronic disease, ECG, CXR, Urinalysis and physio assessment. I explained to the son and the patient my initial management plan and that I would then discuss with a senior with regard to what to do next. Initial management plan – 1) routine bloods looking for evidence of anaemia of chronic disease, infection or malnutrition, 2) ECG – routine care, 3) CXR – looking for occult malignancy for cause of substantial weight loss in light of heavy smoking history, 4) Urinalysis – part of a dementia screen, 5) physio assessment – was this man's level of mobility safe? 6) Discharge Team – to look at social situation and what help could be offered.

I identified a provisional diagnosis. My provisional diagnosis was of a dementive process, vascular dementia in light of PMH. I waited to discuss with the registrar before organising any brain imaging.

I met with the son to discuss the physio assessment results. The Physio assessment found that mobility was unsafe and the physio advised that going home would be unsafe and also raised the issue of limited insight and capacity. This greatly upset the son who then requested to see me.

I decided the son needed information on the discharge process. We discussed the issues of insight and capacity a little, I stated that I was awaiting the arrival of the Registrar from clinic and gave results of the bloods tests and CXR which were normal. I acknowledged that the son was upset, worried and angry. The son was angry because he thought the physio had meant that we could keep his father in hospital against their will. I used my calm manner to defuse the situation and explained that we want to all work together as a team in the best interests of his father. I arranged for the Discharge Team to assess soon after this to see what package of care we could have put in. The Discharge Team Assessment was that he needed a package of care. They suggested a Step up step down bed. But this is not appropriate for home.

I reflected on the case and I became aware of my own emotions in managing this case. At this point I had begun to feel uncomfortable and out of my depth. I was wishing for the return of the registrar imminently as I could feel tensions rising. I also realised I felt frustrated with the son as it was he who triggered this hospital assessment because he was so worried about his father's inability to cope at home, memory problems, frailty and lack of selfcare and insight. Yet he was adamant that he did not want his father to stay in hospital in the Step up Step Down Unit until social care could be put in place. I felt guilty when I realised I had been feeling that way. However I felt very worried about what would happen to the patient when the son went on holiday. I went back to speak to them to see how they were getting on and to re-establish a good doctor-patient-relative relationship. The son had calmed down and I think he realised that I was trying my best on their behalf and was genuinely concerned for his father's health.

I sought the advice from the Registrar to confirm my thinking on the case. I was very grateful that the registrar arrived shortly after this. He conducted a capacity assessment and found the patient to have limited insight into future care needs but that he did have the capacity to decide to go home, knowing that he may fall and seriously injure himself. An emergency assessment in the home the next day with a package of care to start the next evening was arranged urgently. The son agreed to stay with his father until this assessment had been made.

After the Registrar left, I went back over to check they had understood everything and made sure all of the paperwork was complete.

(See the Appendix of Fish, 2015a)

Towards placing the virtues at the heart of PGME: 2011 - 15

More recently, building on our experience of how to teach and develop professional judgement and clinical decision-making, we have begun to move towards the idea of attending in addition to more of the virtues and to moral reasoning. Even before 2012 we were beginning to think about basing the PGME curriculum more on the virtues and capacities than on competencies (see the Appendix of Fish, 2012a).

In our most recent publication series, *Medical Supervision Matters* for the educational development of supervisors, we have developed four workbooks each acting as the pre-preparation for a day's teaching led by experts in medicine and education in a seminar group. Activities require group members to investigate aspects of their educational practice in very simple ways and to probe the weak spots in the PGME system in their own organization, that they can easily themselves individually or as a group remedy. This is done in set writing activities which are sent in by email by a set date before the class meeting and responded to in writing on the meeting day.

These booklets together represent a new core curriculum for supervisors and are designed to meet the new GMC requirements. They contain a series of topics: **Booklet 1:** Starting with myself as a doctor and a supervisor; **Booklet 2**: Practical dilemmas about teaching and the teacher; **Booklet 3:** practical dilemmas about learning and the learner; **Booklet 4:** Practical dilemmas about assessment and evaluation. But permeating across these like a spiral curriculum is a further series of issues. These include working in the moral mode of practice and developing the virtues and moral reasoning.

In Booklet One we introduce by reference to a range of writers including: Annas (2011); Aristotle; Arthur (2012) the GMC (2011), some definitions of the virtues and some differences between values and virtues. This is followed by a writing task, which simply asked the consultants to make a 2 column table and set out in the right hand column a patient case from their own practice in bullet points (as they are used to doing in practice for a variety of reasons) and add in the left hand side at appropriate points and various stages the virtues and character traits required of them during the case. This is the starting point so that the teachers/ supervisors have experienced the process first. The consultants on current teaching courses have engaged with this with

enthusiasm and ability. They have subsequently been surprised by how young doctors have responded and the result has been a greater collaborative approach to teaching and learning. This is extended in later Booklets and the final Booklet looks at using these teaching experiences for assessment.

We would hope to share more of this at our presentation together with our experience of using these educational resources in everyday practice.

PGME: A special case of character and virtues education within the professions?

What we have offered here leads us to think that cultivating the virtues in PGME is at minimum an interesting and possibly a special case of character-virtue education, despite the fact that initially one might think that doctors' characters will have been developed long since and their understanding of the virtues demanded of them, well established.

Clearly, the demands of medical practice are such that unlike all other professionals, doctors are still under supervision for many years in practice. This alone indicates that there is much learning still to do, which can only occur once they have become doctors, when they discover that the conduct required of them (their visible behaviour driven by their virtues and values) is a long way from their previous surface behaviour as a student without the real responsibilities for serious patient care. Yet they rarely have the time in the business of practice to explore who they are as a person and a professional, and how the virtues they are assumed to espouse *are expressed in their own practice.*

Current PGME curricula show very little interest in these matters and centre almost exclusively on the knowledge and skills that need to be learnt. Indeed, PGME abducted the headings of the school curriculum (knowledge, skills and attitudes) to shape these specialty curricula, thus ignoring doctors' need to learn to conduct themselves with special sensitivity and wisdom beyond what can be expected of schoolchildren.

This makes considerable educational demands upon the supervisors of such doctors, for whom the support for their own development is woefully inadequate, their preparation having been no more than a two day training course whose focus was exclusively on teaching knowledge, skills

and procedures. That is why in preparing supervisors as educators, we try to help them to theorize their own and their supervisee's practice in terms of who they bring to their encounters with patients and how they 'live' their understanding of the virtues.

We therefore welcome the growing national focus on the virtues, and in *Medical Supervision Matters* we have developed a 'core' curriculum for postgraduate medicine that includes these — and we even wonder whether a virtues-based curriculum might be designed for undergraduates (as opposed to a competency-based one).

Last words: ripe for research to inform further development and wider dissemination?

We leave the reader with the following questions and would value responses to these and any other key thoughts, during discussion of this work.

Are we on the right lines educationally?

How might our work be improved educationally for teaching and nurturing the virtues in postgraduate doctors?

What advice can you offer us as we struggle to improve our teaching?

What are your thoughts about the assessment of the virtues in this context?

and

What challenges do you think we have, that we currently that we might not yet have recognized?

References

Annas, J. (2011) *Intelligent Virtue*. Oxford: Oxford University Press.

Arthur, J., Kristjansson, K. Thimas, H., Kotzee, B., Ignatowicz, A. Qui, T (2015) *Virtuous Medical Practice: Research Report* Birmingham University Jubilee Centre. www.jubileecentre.ac.uk/userfiles/jubileecentre/pdf/Research%20Reports/Virtuous_Medical_Practice.pdf

Brigley, S., Golby, M. and Robbe, I. (2004) The educational evaluation of General Professional Practice of Surgery (GPPS), *Annals of the Royal College of Surgeons* 86, Sept. doi 10.1308/147870804803.

Carr, D. (2004) Rival Conceptions of Practice in Education and Teaching, in J. Dunne and P. Hogan (eds) *Education and Practice: Upholding the Integrity of Teaching and Learning*. Oxford: Blackwell Publishing.

de Cossart, L. and Fish, D. (2004) A first curriculum framework for surgical SHOs designed by The Royal College of Surgeons of England**,**), *Annals of the Royal College of Surgeons* 86, July, pp. 309-11. doi 10.1308/147870804399.

de Cossart, L. and Fish, D. (2005) *Cultivating a Thinking Surgeon: new perspectives on clinical teaching, learning and assessment.* Shrewsbury: TfN Publications.

Dunne, J. (2004) Chapter 4 in J. Dunne and P. Hogan (eds) *Education and Practice: Upholding the Integrity of Teaching and Learning.* Oxford: Blackwell Publishers.

Eraut, M. and du Bouley, B. (2000) Developing the attributes of medical professional judgement and competence: a review of the literature. Cognitive Sciences Research Paper 518, University of Sussex, 2000. Online version. Sections 3.1 and 3.2 reprinted on CD as part of Module 1 of the Human Face of Medicine, BMJ Publishing Group, London.

Fish, D. (2004) The educational thinking behind The Royal College of Surgeons of England's first curriculum framework, *Annals of the Royal College of Surgeons* 86, July, pp. 312-15. doi 10.1308/147870804399

Fish, D. (2012a) *Refocusing Postgraduate Medical Education: from the technical to the moral mode of practice*, Aneumi Publications: Cranham, Gloucester.

Fish, D. (2012b) From *Strands* to *The Invisibles*. Chapter 4 of G. Boniface, & A. Seymour, (eds) (2012) U*sing Occupational Therapy Theory in Practice*. Oxford: Blackwell Publishing Ltd.

Fish, D. (2015) *Starting with myself as doctor and a supervisor*. Booklet 1 of Medical Supervision Matters, Cranham, UK: Aneumi Publications

Fish, D. and Coles, C. (eds) (1998) *Developing Professional Judgement in Health Care: learning through the critical appreciation of practice*. Oxford: Butterworth Heinemann.

Fish, D. and de Cossart, L. (2007), *Developing the Wise Doctor*. London: Royal Society of Medicine Press.

Fish, D. and de Cossart, L. (2013) *Reflection for Medical Appraisal*: Aneumi Publications: Cranham, Gloucester.

Fish, D. de Cossart, L., and Wright, T. (2015a) *Practical dilemmas about supervision and teaching.* Booklet 2 of Medical Supervision Matters, Cranham, UK: Aneumi Publications

Fish, D. de Cossart, L., and Wright, T. (2015b) *Practical Dilemmas about the learner and learning*. Booklet 3 of Medical Supervision Matters. Cranham, UK: Aneumi Publications

Fish, D. de Cossart, L., and Wright, T. (2015c) *Practical Dilemmas about Assessment and Evaluation*. Booklet 4 of Medical Supervision Matters. Cranham, UK: Aneumi Publications

GMC (2011) General Medical Council (2011a) *Good Medical Practice* (http://www.gmc-uk.org/guidance/10775.asp. Accessed 24th August 2014).

GMC (2012) Recognising and approving trainers: The implementation plan. London: GMC. (http://www.gmc-uk.org/education/10264.asp. Accessed on 24th August 2014).

Thomé R. (2012) *Educational Practice Development: An evaluation (An exploration of the impact on participants and their shared organisation of a Postgraduate Certificate in Education for Postgraduate Medical Practice 2010-2011*. Chester: Countess of Chester Hospital.

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