

DISCUSSION PAPER

The care of the patient and the soul of the clinic: person-centered medicine as an emergent model of modern clinical practice

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Abstract

Despite exponential increases in biomedical and technological advance over the 100 years that have radically transformed the scope, possibility and power of clinical practice, there is a growing and pervasive sense of unease within international medicine that all is not entirely well, leading to claims that medicine has entered a time of significant crisis - a crisis of knowledge, care, compassion and costs. As medicine has become more powerfully scientific, it has also become increasingly depersonalised, so that in some areas of clinical practice an over-reliance on science in the care of patients has led to the substitution of scientific medicine with scientistic medicine and an accompanying collapse of humanistic values in the profession of medicine. Since medicine has the unalterable imperative to care, comfort and console as well as to ameliorate, attenuate and cure, the perpetuation of a modern myth in medicine - that now that we can cure we have no more responsibility to care - risks the creation of an ethical and moral chaos within clinical practice and the generation of negative outcomes for both patients and clinicians alike. With reference to these observations and concerns, we briefly review signal occurrences in the development of the so-called 'patient as a person' movement. We then comment on the emergence and progress of the separate evidence-based medicine (EBM) and patient-centered care (PCC) movements, noting how these initiatives have developed in parallel, but how rarely they have entered into exchange and dialogue. Contending that both such movements have greatly enriched the understanding of the profession of medicine, we nevertheless argue that each model remains of itself essentially incomplete as a coherent account of the unique undertaking that is clinical medicine and argue for the need for a rational form of integration to take place between them. Such a coalescence would allow the persons of the patient and clinician(s) to engage in a mutual and dialogical process of shared decision-making within a relationship of equality, responsibility and trust while ensuring that clinical practice remained actively *informed* by accumulating biomedical science. We recommend that such a development should take place as part of a wider shift within health services, assisting a move away from impersonal, fragmented and decontextualised systems of healthcare towards personalised, integrated and contextualised models of clinical practice, so that affordable biomedical and technological advance can be delivered to patients within a humanistic framework of care which recognises the importance of applying science in a manner which respects the patient as a person and takes full account of his values, preferences, stories, cultural context, fears, worries and hopes and which thus recognises and responds to his emotional, spiritual and social necessities in addition to his physical needs. This, we contend, is person-centered medicine, an emergent model of modern clinical practice.

Keywords

Biopsychosocial model, complexity, ethics, evidence-based medicine, evidence-informed medicine, humanism, medical philosophy, medicine of the whole person, patient-centered care, people-centered public health, person-centered medicine, profession of medicine, reductionism, scientism.

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Introduction

'Medicine today is not what it used to be. Exponential increases in technological and biomedical advance over the last 100 years or so have radically transformed the scope, possibility and power of clinical practice, driving enormous shifts in individual and population health. Yet despite such staggering progress, there is a growing and pervasive sense of unease within international medicine, indeed a frank recognition perhaps, that all is not entirely well, leading an increasing number of authors and commentators from a wide variety of clinical, academic and patient backgrounds, to claim that medicine has entered a time of significant crisis, urgently needing to re-learn what it has progressively forgotten in over a century of empiricism'

So write Miles and Loughlin in an article recently published within the *Journal of Evaluation in Clinical Practice*, entitled 'Models in the balance: evidence-based medicine versus evidence-informed individualised care' [1]. On first examination, the claim that modern medicine has entered a situation of crisis may appear somewhat exaggerated. Indeed, the literature and lay press of the twentieth century is replete with evidence of the awe, joy and excitement of clinicians and patients alike at the 'staggering progress' being made within medicine and healthcare more generally, with therapeutic nihilism giving way to therapeutic optimism and political will devoted to the achievement of universal healthcare coverage. But as medicine has become more powerfully scientific, it has also become increasingly depersonalised, so that within many areas of clinical practice it has been possible to witness the substitution of scientific medicine for scientific medicine and to see an accompanying collapse of humanistic values in the principles and practice of medicine. Scientific medicine may even shortchange the scientific approach to the biopsychosocial complexity of the person as may be observed when explanations of human illness and health are restricted to genomic analysis illustrated by, for example, purely translational approaches to diagnosis and therapy. Since medicine has the unalterable imperative to care, comfort and console as well as to ameliorate, attenuate and cure, the maintenance of a preferential emphasis on either cure or care risks perpetuating a modern 'myth' within medicine – that now that we can 'cure', we no longer retain any responsibility to 'care' – thus exacerbating the crisis to which Miles and Loughlin refer – a crisis of knowledge, compassion, care and costs – and which risks a grave outcome for patients and clinicians alike.

In this article and in advance of a more detailed and extended analysis [2], we reflect briefly on the clinical philosophies of Francis Peabody (from whose last two notable works [3,4] before his premature death at 47 of gastric leiomyosarcoma we derive our title) and Paul

Tournier, two sentinel voices of the wider 'patient as a person movement' [2] that arose out of a growing professional alarm at the increasing dehumanisation of medical practice in their times. We then discuss how other signal occurrences in the development of medical thinking during the 20th Century, such as the publication of Engel's biopsychosocial model, the advent of Evidence-based Medicine (EBM) and the rise of patient empowerment initiatives such as patient-centered care (PCC) are leading, through a Hegelian synthesis, to the appearance of person-centered medicine as an emergent model of modern clinical practice. Finally, we discuss the challenges that now face this new model of medical care if it is to be successfully adopted within global health systems and to provide the wide range of benefits to patients, populations and health systems which early research studies indicate that it has the potential to deliver.

The rise of scientific medicine and the advent of depersonalisation

Francis Peabody was one of the earliest examples of a physician who practised in an era when concerns were first articulated that medicine was becoming narrowly scientific and care too impersonal – in parallel. Writing in his celebrated article *The Care of the Patient* in 1927 [3], Peabody notes that "the most common criticism made at present by older practitioners is that young graduates have been taught a great deal about the mechanism of disease, but very little about the practice of medicine – or, to put it more bluntly, they are too 'scientific' and do not know how to take care of patients". For Peabody, changes in the undergraduate medical curriculum had clear relevance here, enabling him to note that while it was understandable that medical schools had become absorbed in the difficult task of digesting and correlating new scientific knowledge, it was increasingly becoming forgotten that the application of the principles of science to the diagnosis and treatment of disease continued to represent only one aspect of medical practice, so that the understanding that science was a *component* of medicine and could in no way be equated to it, was becoming lost. This observation, of a growing preoccupation in the early 20th Century with the science of medicine at the expense of a maintenance and development of its so-called 'art', has been described in more recent times as a *de-coupling* of medicine's two foundational and constituent components [5-7].

Far from being remotely 'anti-science', Peabody's writings exemplify a considerable excitement with the progress being made in the development of the science base of medicine during the first quarter of the 20th Century. He views with astonishment, for example, the "amazing progress of science in its relation to medicine" and the "enormous mass of scientific material which must be made available to the modern physician" [3], but he remained resolutely clear that "the art of medicine and the

science of medicine are not antagonistic, but rather supplementary to each other”, insisting that there was “no more contradiction between the science of medicine and the art of medicine than between the science of aeronautics and the art of flying” [3]. He encouraged his students to remember that “disease in man is never the same as disease in an experimental animal, for in man the disease at once affects and is affected by what we call the emotional life”, so that “the physician who attempts to take care of a patient while he neglects this factor is as unscientific as the investigator who neglects to control all the conditions that may affect his experiment”. For Peabody, then, the art and science of medicine were in no way polar opposites, but foundational components of medicine that should at all times be yoked together and never under any circumstances held apart [5-7].

Humanity in clinical practice

Peabody's commitment was to a model of medicine informed, but not dictated to, by science and in its broadest sense his vision remained substantially concerned with the whole relationship of the physician with his patient, a fundamental facet of person-centered medicine as we understand it today. For him, the practice of medicine was an entirely personal matter. Indeed, he was clear that while the treatment of a disease may be entirely impersonal, the care of a patient must be completely *personal*. The significance of the intimate personal relationship between physician and patient could not, for Peabody, be too strongly emphasised, “for in an extraordinarily large number of cases both diagnosis and treatment are directly dependent on it and the failure of the young physician to establish this relationship accounts for much of his ineffectiveness in the care of patients”. This concern with the change in professional ‘style’ of his junior colleagues was also reflected in his comments on the institutions in which they worked and which they would later come to influence, such that Peabody was able to observe that hospitals, like other institutions founded with the highest human ideals, “are apt to deteriorate into dehumanised machines” [3].

This commitment to a relationship-based style of practice permeated all of Peabody's writings and found full expression in his many lectures at Harvard. Particularly evocative, perhaps, is his conception of the patient as a *person*, which emphasises that the clinical picture of the patient should never be understood simply as “just a photograph of a man sick in bed; it is an impressionistic painting of the patient surrounded by his home, his work, his relations, his friends, his joys, sorrows, hopes and fears”. For Peabody, the ‘good doctor’ would always strive to obtain such an intimate knowledge of his patient's circumstances as well as afflictions, being clear that in order to achieve and maintain such contextual insight, “time, sympathy and understanding must be lavishly dispensed”, an undertaking and process which, though intensive, would result in the formation of that “personal

bond which forms the greatest satisfaction of the practice of medicine”. Peabody insisted, then, that one of the essential qualities of the clinician is humanity, concluding *The Care of the Patient* with a striking truism: “for the secret of the care of the patient is in caring for the patient”.

Paul Tournier and the person-centered clinical method

Throughout the 20th Century, Peabody's lectures and writings came to be described as having a fabric of pristine humanism, a universality and a timelessness, embodying the noblest aspirations of the medical profession, with Peabody being accorded the status of a ‘complete clinician’, combining the roles of “physician, clinical scientist, teacher, healer, counsellor, confidant and friend ...”. [8]. Unfortunately, Peabody's work failed to challenge medicine in a manner which would prove sufficient to effect a reversal in the growing dehumanisation of clinical practice during his short lifetime. Indeed, if the science and art of medicine were beginning to become seriously ‘unstuck’ during Peabody's era, then that process of de-coupling certainly accelerated during Paul Tournier's years in practice.

Tournier was a Swiss family physician who practised in Geneva for most of his professional life [9]. In his reaction to the growing depersonalisation of medicine and as a means of arguing for its reversal, Tournier advocated an integrated approach in medicine, so that clinical intervention occurred within a context of psychological understanding and pastoral counselling and where proper attention could be given not just to the biological characteristics and responses of disease, but also to the psychological, emotional and spiritual dimensions of what it is to be human and to the social context of the individual within his family and Society more generally [9]. Like Peabody, Tournier had become greatly worried by what he saw as the effects on clinical care of a ‘mechanical, reductionist medical practice, devoid of ethics and without sustaining compassion’. A reductionist approach to clinical practice restricted to biomedicine alone was, for him, a dangerous activity, lacking the integration of body, mind and spirit necessary for health and wholeness and overlooking the healing potential of the therapeutic relationship. Tournier, like Peabody, did not deny the incontrovertible necessity of efforts to synthesise a scientific knowledge of man, but was clear that, however successful, such knowledge would reveal only one side of man's nature - that of his mechanisms. Thus, however scientific that medicine would become, there would always remain, Tournier argued, a need to augment such knowledge in clinical practice with what he described as “a personal knowledge, which is of a different order, the order of the person, not that of things” [7].

George Engel and the biopsychosocial approach to clinical care

It was in 1977, some 50 years following the publication of Peabody's *The Care of the Patient* [3] and 33 years following the publication of Tournier's *Medecine de la Personne* [9], that one of the most significant occurrences of direct relevance to the person-centered medicine debate took place. Taking medicine to task for its tolerance of the ongoing dissociation of its science-art duality, George Engel published his landmark paper *The Need for a New Medical Model: A Challenge for Biomedicine*, in the journal *Science* [10]. Engel had studied with Soma Weiss who had earlier trained with Peabody and it was Weiss who taught Engel the importance of placing the patient's narrative at the very centre of the clinical assessment. Essentially arguing that medicine should re-integrate into its practice a proper concern for the psychological, behavioural and social context of the patient, Engel firmly advocated a central focus on the patient as a person, rejecting a medicine based on bioscience alone in favour of a psychosocial model that provided "a blueprint for research, a framework for teaching and a design for action in the real world of health care" [10]. Risking, indeed precipitating controversy, Engel advanced his ideas not in the manner of a scientific proposal, but rather as a fundamental ideology dedicated to the re-introduction into clinical practice of a vital dimension – the human dimension – as a fundamental area of scientific study.

Three years following his initial paper, Engel published a further seminal work, outlining a methodology through which the biopsychosocial model could be applied in clinical practice [11]. Engel's philosophy rejected a monistic or reductionist approach to clinical practice through which a given phenomenon could be reduced to its constituent parts for individual analysis at, for example, the biological level. In doing so, he directly laid the foundations of the thinking that now recognises the importance of complexity theory in medical practice and which illustrates that clinical phenomena are generally far too complex to be understood solely through the use of linear cause-effect models [12]. As Borrell-Carrio and colleagues point out, Engel's biopsychosocial model in no way represented a paradigmatic shift as defined by Kuhn, but rather an expanded application of existing knowledge to the needs of the patient. These authors argue that Engel's most enduring contribution to medicine was to broaden the scope of the clinician's gaze, emphasising an understanding of the patient as a person and arguing vigorously against the development of a cold, impersonal, technical, biomedically-dominated style of clinical practice which neglects the human dimension of suffering [13].

Patient-centered care

Engel's work, like that of Peabody and Tournier, was presented not as a challenge for any one specialty, but for medicine in general. Noting powerfully how medicine was increasingly forgetting its historic mission – to care, comfort and console in addition to ameliorating, attenuating and curing – it directly created the platform for subsequent inquiries into the extent (or lack of it) of the patient-centeredness of clinical care [14]. The earliest contributions to the literature which present patient-centeredness as a conceptually distinct entity pre-date Engel's landmark paper, but were undoubtedly influenced by Engel's longstanding argumentation, with a sizeable increase in research activity and literature citation in this field being documentable from the mid-1950s [15]. The contemporary use of the term 'patient-centered care' is, however, traceable to Levenstein and his co-workers, whose 1986 paper in *Family Practice* 'The patient-centered clinical method – a model for the doctor-patient interaction in family medicine' was greatly influential in generating an increased awareness of the need to move medicine back towards a clear focus on the individual patient [16]. Certainly, the creation and maintenance of patient satisfaction with the process and outcome of healthcare intervention has remained at the heart of the movement from its inception and throughout its history to the present day [14,17-26]. Deriving from efforts to place the patient and his needs and circumstances at the very centre of clinical consultations, patient-centered care was characterised initially not so much by a definition of what it was, but rather by explanations of what it was not: technology-centered, doctor-centered, hospital-centered, disease-centered.

The evolution of the movement has generated varying and sometimes inconsistent definitions of person-centeredness and has yielded differing results from independently conducted studies. This is perhaps unsurprising, given the lack of availability of standardized tools for general use and also the wide range of disciplines conducting patient-centered care research. Here, differing disciplines, bringing with them differing perspectives and methodologies, have almost certainly functioned directly to generate the inconsistencies clearly visible within the literature, even though there is much obvious convergence of their overall philosophies. For example, patient-centered care has been described by one school of thought as conceptually based on the effects of illness on the patient, his family and healthcare providers and how these effects of illness are dealt with [14,25,27,28]. A related school of thought insists that patient-centered care, while clearly focussed on the patient and his family, is based on ensuring a recognition of the patient's values, preferences, abilities and self-expressed needs [14,15,21,22,25,27-29]. Yet another describes patient-centered care as maintaining the traditional doctor-patient model of care, but which ensures that the patient is at least informed as part of decision-making, if not necessarily actively participative,

on the premise that shared decision-making may not be appropriate in all cases [15,21,29,30].

Other approaches to conceptualisation have elected in favour of a far more encompassing and broader approach to study. Of particular relevance here is the landmark investigation by Gertels and colleagues, cited earlier [17], which addressed four principal questions to patients, their families and healthcare providers in an attempt to determine the basis of what should constitute person-centered healthcare: (1) what do patients want? (2) what do patients value? (3) what helps or hinders their abilities to manage their health problems & (4) what aspects of care are most important to patients and their families? On the basis of the results obtained from their study of more than 8000 subjects, Gertels and associates were able to identify 8 individual dimensions of patient-centered care: (1) respect for patients' preferences, their values and self-expressed needs; (2) physical comfort; (3) emotional needs; (4) communication, information, education and explanation; (5) access to healthcare services; (6) continuity of care and follow-up; (7) involvement of the patients' family and friends in the care process and decision-making & (8) co-ordination and integration of healthcare services.

Stewart [27], commenting on Little [31] and drawing upon her own research and other studies, noted that patients, when offered a patient-centered model of care, elected overwhelmingly in favour of this approach to healthcare practice and delivery, understanding this 'option' to be one which (a) explored the main reason for their visit, concerns and need for information; (b) sought an integrated understanding of their individual 'world', that is, their whole personality, emotional needs and life issues; (c) attempted to identify 'common ground' on what their problem was and to seek a mutual agreement on the method of management; (d) encouraged an enhanced approach to prevention and health promotion and, finally, (e) sought to enhance the continuing relationship between them and their doctors [27]. Epstein, writing in the *Journal of Family Medicine* in 2000 [32] had argued that patient-centered care enables an expansion on the disease-orientated model of clinical care through its incorporation of the patient's experience of disease and its ability to take account of the psychosocial context of illness, enabling also a greater interaction of clinician and patient in the form of shared decision-making. Here, emphasis had been placed on the centrality of trust and responsibility as part of patient-centered care [33].

In a provocative article, Berwick offered his own understanding of 'what patient-centered should mean', advancing a new definition: 'The experience – to the extent the informed, individual patient desires it – of transparency, individualisation, recognition, respect, dignity and choice in all matters, without exception, related to one person, circumstances and relationships in health care' [34], acknowledging that patients would be able to modify the definition to include the experience of family and loved ones. Berwick acknowledges the radicality of

his definition, recognising that as part of his vision, the healthcare system would be 'uncomfortably different' from its current form. He advances eight separate determinants of such a new model: (1) hospitals would have no restrictions on visiting – no restrictions of place or time or person, except restrictions chosen by and under the control of each individual patient; (2) patients would determine what food they eat and what clothes they wear in hospitals (to the extent that health status allows); (3) patients and family members would participate in rounds; (4) patients and families would participate in the design of health care processes and services; (5) medical records would belong to patients. Clinicians, rather than patients, would need to have permission to gain access to them; (6) shared decision-making technologies would be used universally; (7) operating room schedules would conform to ideal queuing theory designs aimed at minimizing waiting time, rather than to the convenience of clinicians & (8) patients physically capable of self-care would, in all situations, have the option to do it. Berwick's paper excited much interest and comment, with the debate currently continuing as part of the agenda for forthcoming USA healthcare reforms.

Two recently published articles have continued the longstanding debate on patient-centered care. In the first, Epstein and Street argue that lost in the continuing discussions of patient-centered care has been a proper understanding of the 'revolutionary meaning' of what it means to be patient-centered. For these authors, patient-centered care is a quality of personal, professional and organisational relationships. Confusion over what patient-centered care actually means, the authors observe, can result in efforts to achieve it that appear superficial and unconvincing. They argue that with social changes in medicine, the operational definition of patient-centered care is changing and that measures to reflect these changes are therefore in need of development, especially given the large scale investments currently being made in the improvement of the patient-centeredness of healthcare interventions in many developed countries, confidently asserting that patient-centered care has "made it to center stage in discussions of quality" [35]. In the second, Frankel and colleagues, observing the progress of the patient-centered care movement to date, argue that a more recent expansion of the patient-centered care model is represented by the emergence of a renewed emphasis on the concept of relationship-centered care [36]. The authors contend that inherent in patient and relationship-centered approaches is the idea that establishing and maintaining healing relationships is central to delivering high quality healthcare, requiring the clinician to have achieved a deep personal knowledge of himself. This perspective is noteworthy, emphasising as it does, the requirement for the acquisition of self-awareness skills, essential if the clinician is to respond empathetically to a patient's expression of suffering or if he is to consider his own sadness in delivering bad news. In this context, Frankel and colleagues proceed to examine three principal

educational approaches to self-awareness: mindful practice, formation and communication skills, describing in detail how each approach can actually be taught [36].

Evidence-based medicine

Evolving in parallel with the patient-centered care movement, but rarely having entered into dialogue with it, has been Evidence-based Medicine (EBM). The term was first employed by Guyatt in 1990, with the nomenclature appearing briefly within the literature in 1991 [37] in advance of the formal promulgation of the method within the *Journal of the American Medical Association* in 1992 as a 'new approach to teaching the practice of medicine'. Appealing to Thomas Kuhn's 'The Structure of Scientific Revolutions' [38], the authors asserted that the current paradigm in which international medicine was imbedded had become untenable and was urgently in need of substitution by a new philosophy of medical practice and teaching. EBM, advanced as the 'new paradigm' for medical practice, de-emphasized intuition, unsystematic clinical experience and pathophysiology as adequate grounds for clinical decision-making, preferentially recommending the use of scientific evidence from clinical research as the *basis* for practice. For the first time, an explicit recommendation was made within medicine that argued for medical practice to be *based* on the principles of clinical epidemiology, astonishingly accompanied by a formal admission from the authors that no definitive evidence existed to demonstrate the superiority of the proposed new paradigm over and above the existing one [39].

Reactions to the EBM thesis

The 1992 promulgation of the EBM thesis excited differing responses from differing sections of the international healthcare community, with learned controversies focussing on what exactly counted as knowledge for action in clinical practice and early rejections of the so-called hierarchy of evidence proposed by EBM and of the notion of a paradigm shift as having taken place [40]. The scale of reaction within the global medical community to EBM's claims and the failure of the 1995 Davidoff Editorial 'Evidence-based medicine: why all the fuss?' [41] and other associated works to extinguish the controversy generated, led Sackett to publish a further paper one year later entitled: 'Evidence-based medicine: what it is and what it isn't' [42]. A similarly brief Editorial, it likewise failed to resolve the tensions that had arisen from a demand by the proposed 'new paradigm of medicine' that the *basis* of clinical practice should be biostatistical data derived from quantitative study designs, with the randomised controlled trial described as the gold standard for the generation of evidence for patient care and cumulative meta-analysis of randomised studies, a

statistical technique laden with methodological limitations, advanced as a powerful source of evidence for clinical decision-making [39].

Such a model of medicine, affording *primacy* in clinical decision-making to scientific evidence derived from epidemiological study designs conducted in rarified trial populations (the so-called 'E' of EBM), effectively precluded the use within medical practice of the plurality of other sources of clinical knowledge of immediate relevance to the care of patients and for this reason EBM quickly became described as dogmatic, reductionist and scientific. Indeed, Feinstein and Horwitz, writing in the *American Journal of Medicine* in 1997, were clear that EBM, by its nature, was effectively unable to assimilate the humanistic dimension of clinical practice which included, as the authors pointed out, psychosocial factors and support, the personal preferences of patients and strategies for giving comfort and reassurance [43]. The fundamental inability of the EBM model of practice to incorporate such vital inputs to the decision-making process when such inputs are in conflict with the 'E' of EBM, has been clearly visible from the inception of EBM in 1992, directly to the time of writing. A recent and highly noteworthy analysis from the EBM Community admitted as much [44], describing this fundamental inability of EBM as 'vexing', with extensive scholarly commentary confirming the same [45-51]. Even the latest *Apologia* from the EBM Community [52] fails, on detailed analysis [53], to resolve this philosophical and clinical conundrum, directly indicating a foundational irreconcilability between the fundamental principles of EBM and those of patient-centered care, a profound difficulty to which we will turn later in suggesting an approach aimed at resolution.

Such an observation of irreconcilability is, perhaps, unsurprising. The idea that data derived from the results of intrinsically methodologically limited epidemiological study designs such as RCTs and meta-analyses would be routinely applicable to individuals in clinic or at the bedside and that the recommendations from EBM-style systematic reviews of the literature could ever have formed the *base* of clinical practice as required by evidence-based medicine, was always an intellectual and clinical 'impossibility' even an absurdity. Sackett and colleagues had, certainly, talked in terms of the importance of 'integrating individual clinical expertise with the best available external clinical evidence from systematic research', discussing also the need to consider "individual patients' predicaments, rights and preferences in making clinical decisions about their care" [42]. Unfortunately, however, neither at the inception of EBM [39], nor in its subsequent major publications [54-56], nor in articles purporting to address such issues [57], nor in the current incarnation of EBM [52,53,58] are coherent methods advanced through which to integrate patients' predicaments, rights and preferences with the E of EBM, that is to say, with quantitative trial data, in the making of clinical decisions.

The debate on the philosophical tenability of the EBM thesis and on its clinical validity has, at the time of writing, spanned a full two decades. Now, following these twenty years of intensive philosophical and clinical argumentation [1,59-73], there are indications of a final recognition by the EBM community of the inescapable complexity of clinical practice which mandates a need to embrace and maintain the human dimension of medical care [6,7,12]. Certainly, medicine has witnessed no less than four serial reconstitutions of the EBM philosophy and method since the publication of the initial EBM thesis to date. Charles and her colleagues [58], for example, writing from the same department and institution which saw the birth of EBM, are clear that the sequential revisions of the initial 1992 EBM model of practice demonstrate a lack of clarity and logic, being inconsistent and incomplete, with an ambiguity and incoherence that results from the lack of an underlying theoretical basis and the absence of empirical evidence to support the validity of the EBM thesis, even in its current incarnation, 'Version IV' [58]. In an impressive analysis, these authors conclude that EBM is more belief-based than evidence or theory-based and under-developed in terms of the articulation and definition of its constituent components, being devoid of a justification for the inclusion of varying principles into successive revisions of the EBM model and lacking a philosophical and methodological approach for the integration of EBM's 'values' into routine clinical practice [58].

It is for these reasons, the others we have discussed above and with reference to the substantive content of the citations made, that we contend that evidence-based medicine, even as 'Version IV' [58], remains highly problematic as a conceptually coherent and practically viable model of modern medical practice and that a further reconstitution of *both nature and scale* is necessary to cause a modification of EBM's current status within clinical medicine, a conceptual and methodological imperative to which we will now turn.

Evidence-based medicine and the need for a 5th reconstitution

Philosophical perspectives

Hartzband and Groopman, discussing the parallel emergence of the patient-centered care and evidence-based medicine movements, fear that, 'now, when it is most important for them to coalesce, they are poised to collide' [74]. Noting that the success of modern healthcare will involve taking full account of complex psychological, sociological and cultural factors within medicine, the authors are clear that the skills associated with medical humanism will become even more important in helping physicians understand patients' values and needs and that there is, in this context, an urgent need to ensure a 'thoughtful collaboration between evidence-based practice

and humanism'. Here, a dual use of both science and humanism in the decision-making process is needed, but one which additionally allows the need for cost-containment to be properly addressed, so that scientific evidence can be applied in the care of patients in a manner which ensures compatibility with patients' individual needs, but also with reference to resource availability. The authors believe that an 'outright collision between medical humanism and evidence-based guidelines for standardized care can be avoided as long as clinical guidelines (beyond safety measures) remain recommendations rather than mandates'. Since increasing cost pressures within health services tend for their own purposes to favour standardization as a means of cost-containment and given that evidence-based medicine remains ideologically committed to scientific evidence as the base of clinical practice, this is an important point – indeed warning. Not that EBM and cost-containment are normative bedfellows. On the contrary, and as Miles and Loughlin [1] have pointed out, EBM is as a model of practice a 'two-edged sword' for healthcare policymakers, fully capable of greatly increasing healthcare costs as well as reducing them as a function of its identification, through its own rules, of what 'works' in clinical practice and what does not.

Hartzband and Groopman [74] believe it essential within medicine to respect the overriding ethical principle that it is the patient who must exercise the final choice of treatments and interventions as part of the clinical decision-making process as it is he or she who will either benefit or suffer from that choice. Thus, a healthcare system which mandates the use of 'evidence-based' guidelines as part of, for example, a UK NHS-style commissioning system or a US-style 'pay-for-performance' model, has the potential to lead directly to a 'misaligning (of) the goals of doctors and patients'. Clearly, a system which predisposes clinicians, even pressures or forces them, into recommending treatment options to patients that are not necessarily in the interests of the patient and which do not allow their values and preferences to be taken fully into account, is a retrograde action in a forward moving society. For the authors, it is shared decision-making that represents the most obvious solution, with both patient choice and clinical judgement retaining a central place within the consultation.

We agree with Hartzband and Groopman [74] that the time has come for EBM and patient-centered care *to coalesce* and for precisely the reasons these authors discuss. While both the EBM movement and the patient-centered care movement have challenged medicine to move forward in an entirely necessary manner – EBM actively insisting that greater attention should be given to the results of biomedical and technological advance and patient-centered care insisting that greater attention should be given to the needs of the individual patient – both models ultimately lack a vision of medical practice that logically accords with the Hippocratic ideals and historic mission of medicine as a science-using and compassionate

practice, centered upon the persons of the patient and the clinician(s) engaged in a mutual and dialogical process of shared decision-making, focussed on the patient's best interests, within a relationship of equality, responsibility and trust.

Methodological considerations

How, then, may such a *coalescence* be achieved, for the purposes for which it has become necessary? After all, the greatest body of the patient-centered care literature advances a definition of the activity that is conceptually in complete opposition to that of evidence-based medicine, so that a fundamental irreconcilability may be identified between the two models when they are analysed comparatively. Bensing noted the same some 12 years ago and argued strongly that bridging the gap between these two models of care was vital 'for all who want to protect the humane face of medicine in the next millennium' [75]. For her, the consultation and thus a person-centered, relationship-based model of care, would prove essential in achieving this outcome.

In order to initiate a debate on how conceptually such a coalescence could be achieved and how methodologically it could be operationalized for practical use within clinical medicine, we will argue that medicine does not have or need a base, but that by its nature and as we have outlined immediately above, it is of its essence a science-using practice which operates well within a dynamic framework centered upon the persons of the patient and the clinician(s) engaged in the mutual and dialogical process of shared decision-making, focussed on the patient's best interests, within a relationship of equality, responsibility and trust. Thus, we contend that while it is imperative that medicine must be actively and continuously *informed* by science, science cannot function as the *base* of medicine and that the dialogical nature of the consultation precludes a *patient-centered* approach. We argue that a model is therefore required which enables science to inform clinical practice alongside a range of other warrants for decision-making and that the consultation must be centered upon both patient *and* clinician(s) and that this model is represented by a medicine not reductively focussed on the person as a patient, but rather centered on the patient as a *person*.

The basis of medicine and the patient as a person

In his 2002 article: 'If not evidence, then what? Or does medicine really need a base?', Upshur [76] noted that in response to the emergence of EBM, several commentators had argued for the importance of including qualitative dimensions of clinical practice as constitutive of the base of medical practice, identifying narrative-based medicine [77], context-sensitive medicine [78], interpretive grammar [79], clinical 'jazz' [80] and tacit knowing [81], in

example. Upshur was clear that a common theme among these varying approaches to a more complete form of clinical practice than had been envisioned by EBM was the need to overcome the dualism between facts and values and to foster a realisation and acknowledgement of the complex interplay of values, perceptions and beliefs that frame how medicine is practised, dimensions which have typically and historically escaped the conceptual thinking and methodological preferences of the EBM approach [1,45-53,58-73]. Reviewing the interpretive approach in medicine alongside a consideration of phenomenological approaches to clinical practice, Upshur was clear that the value of anti-foundationalism in medicine is precisely that it pushes medicine away from simplistic conceptions of the relationship of science and medicine and actively prevents incomplete and reductionist models of practice, such as EBM, from prevailing. In summary, Upshur argued that scientific evidence is unable to function as the *base* of medicine and that (from the anti-foundationalist standpoint), medicine is not in need of a single, solid foundation, but can operate well within a dynamic emergent framework. Not that foundationalism, *per se*, is automatically excluded from a coherent theory of medicine. On the contrary, and as Upshur, pointed out, real possibilities exist for the integration of categorically different approaches within medicine, so that science and art and fact and value, rather than being held apart as polar opposites, can and should be increasingly yoked together in the service of medicine and humanity [1,2,5-7].

Science-informed clinical practice?

Within this overall context, perhaps the most striking development in recent medical discourse which reflects an acknowledgement of the 'impossibility' of a medical practice based on quantitative trial data alone, is the increasing use by colleagues and institutions that previously would have employed the prefix 'evidence-based' (and did so incontinently), of the prefix 'evidence-informed'. The Evidence Centre of the British Medical Association's journal, for example, now speaks in terms of 'building evidence into practice' and 'developing evidence to *inform* healthcare decisions', so that healthcare can be improved by 'putting the most current research into practice, *alongside healthcare professionals' experienced and expert opinion*' (italicisation ours) [82] and the Cochrane Collaboration has similarly presented its vision that 'healthcare decision-making throughout the world will be *informed* by high quality, timely research evidence' (italicisation ours) [83]. Moreover, Godlee, Editor-in-Chief of the *British Medical Journal*, writing jointly with Rawlins, Chairman of NICE in the UK (an influential health policy-making body actively advising a range of non-UK governments), now speaks in terms of the need to promote 'cost-effective, *evidence-informed* healthcare policy as a means of improving global health ... (to) ... support rational decision making' (italicisation ours) [84]. Of notable symbolic importance is the Oxford Centre for

Evidence-Based Practice, founded by David Sackett, which now appears to promote 'the *integration of relevant evidence with clinical experience* ... (as forming) ... the cornerstone of evidence-based practice' (italicisation ours) [85]. In further example, the UK Centre for Reviews and Dissemination (founded on the original principles of EBM) now talks of its mission as one which aims to formulate databases for use in underpinning 'evidence-informed healthcare decisions in the UK and internationally' (italicisation ours) [86].

Clinical medicine, informed by scientific evidence *and other warrants* for decision-making

The suggestion that medicine and healthcare practice more generally should be *informed* by science and not dogmatically *based* upon it is not new, but the understanding of how an 'informing' of medicine and of the patient should take place has taken various forms. Glasziou, for example, employed the term in 2005 [87] though in a manner appearing to have been advanced for strategic rather than philosophical reasons. Indeed, being predicated on the belief that once patients are informed of the E of EBM that they were potentially ignoring, they would then (almost certainly) confirm a change in reasoning, withdrawing requests for an integration into decision-making of their values and preferences and preferentially electing in favour of a science-based clinical decision, risks description as essentially a paternalistic re-assertion of the central tenet of EBM via a rhetorical sleight of hand. A detailed and scholarly discussion of the need for an evidence-informed approach to healthcare practices more generally may be obtained via a reading of Nevo and Slonim-Nevo's excellent 2011 paper 'The myth of evidence-based practice: towards evidence-informed practice' [88].

A model of clinical care that is fully and actively *informed* by a complete knowledge of the latest, clinically accepted scientific evidence, rather than ideologically and 'impossibly' *based* upon it, is in our view entirely uncontroversial, logically in accordance with the natural evolution of medicine as a science-using practice [5-7] and fully consonant with the principles of patient-centered care. But quite what would such a model of care look like if it were to be based on no one source of knowledge for action in clinical practice, but where it preferentially drew upon – and was *informed by* – a plurality of sources? To begin to answer this question, we must turn to Tonelli.

Tonelli, a clinician-philosopher in the University of Washington School of Medicine, Seattle, USA, noted the importance of models of healing that contended that the treatment of disease rests upon an understanding of illness in the context of the individual patient [89]. Observing that patients seek unconventional therapies not only when conventional therapies have failed, but also when they are perceived to be emotionally or spiritually without benefit

[90], Tonelli reminds his readers that focussing primarily on quantitative scientific evidence as the basis of clinical decision-making 'minimises the importance of the intangible physical, emotional and spiritual aspects of illness in the healing process'. Ignoring the importance of these factors would be, then, to ignore the importance of the individual and his circumstances and thus to impoverish the philosophy of medicine as a practice aimed at the treatment of individuals. Thus, Tonelli contended that EBM was 'unable to promise the best decision in a particular situation', therefore appearing to compromise the historic mission of medicine which has always required that physicians use medical expertise to respond to the needs of a particular individual [91,92]. Noting that clinical medicine is, by its very nature, 'practical, prudential and personal', Tonelli concluded that medical practice resembles casuistry far more than it does science [93] and that while medicine could benefit a great deal from some of the exhortations of EBM, there was an urgent need to broaden the understanding of what exactly constitutes medical knowledge and reasoning within modern clinical practice. In this context, it was essential for EBM to recognise and embrace the value of all those other forms of knowledge for action in clinical practice that are non-quantitative and clinical trial-based in nature, in order to be able to describe and practise a 'complete and coherent account of the unique undertaking that is clinical medicine' [89].

In 2006, in a landmark paper published within the *Journal of Evaluation in Clinical Practice* entitled 'Integrating evidence into clinical practice: an alternative to evidence-based approaches' [94], Tonelli presented and discussed a range of what the author described as 'warrants' for clinical decision-making, moving the EBM-dominated landscape for clinical practice away from an ideological reliance on science as the basis for decision-making. A further article by Tonelli, published in 2007 [95] following scholarly interchange and discourse [96-107] on the 2006 paper [94], remains of considerable relevance to the person-centered medicine debate.

In Tonelli's casuistic model, the potential warrants for clinical decision making fall under five general topics: (1) empirical evidence; (2) experiential evidence; (3) pathophysiological rationale; (4) patient values and preferences & (5) system features. These warrants are presented as exhaustive and necessarily so, in order to ensure that the casuistic model is both explanatory and descriptive. As Tonelli points out, none of the topic areas can stand alone, or hierarchically, as a basis for decision-making, given that some will be insufficient in certain situations and others irrelevant, as a function of the particular circumstances of the given individual patient. Importantly, the model provides for a fuller account to be taken of the complexity of individuals and of human relationships, greatly more so and much more easily than the EBM model which comprehends these features only when they can be converted into quantifiable patient 'utilities'. Here, the casuistic model allows the clinician,

as part of the doctor-patient interaction, to employ the skills of empathy and compassion, of listening and of being present and to understand and appreciate the need for a personal inquiry into the patient's own narrative of illness. Finally, the model additionally allows a further perspective to be factored into clinical decision-making and without which it would be essentially incomplete – an adequate consideration of the social context of the patient [94,95,108,109].

Tonelli's casuistic model remains a work in progress in terms of its need to produce case-based studies that demonstrate the application in clinical practice of warrants other than those derived from empirical evidence, but it directly provides some of the theoretical and clinical framework for an actively science-informed, yet humanistic medicine which takes a fuller account of the patient as a *person* than is observable within international medicine at the time of writing. As such, it is of considerable relevance to the philosophical underpinning and methodological development of efforts to re-personalise presently de-personalised models of clinical care and service provision. It is precisely to this urgent imperative that we now turn, in providing an account for the reader of the current status of the rapidly emerging person-centered model of clinical practice.

Person-centered Medicine

Nomenclature

Epstein [32] noted in the context of patient-centered care that "although different authors have used different nomenclature, the fundamental idea is that the process of healing depends on knowing the patient as a *person*, in addition to accurately diagnosing their disease" (italicisation ours). We agree. And it is for this reason and the others which we will outline below, that we argue for the preferential use of the prefix 'person-centered'. Our terminological use derives not from personal style or aesthetic preference, but rather from a philosophical understanding of personhood. Here, we understand the personhood of the patient and of the clinician with Cassell, who defines a person as an 'embodied, purposeful, thinking, feeling, emotional, reflective, relational, human individual always in action, responsive to meaning and whose life in all spheres points both outward and inward', so that a person's behaviour, whether 'volitional, habitual, instinctual or automatic', has its genesis from and in *meaning* [110,111]. We accord with Cassell that all persons have a past, a history and a future and that both are therefore part of the person who lives and presents. Moreover, each person has a capacity for love and each has a spiritual life. Each has a body that is capable of some actions, but not necessarily of others and these capacities or incapacities are part of the person himself. The concept of person within the context of the clinical encounter is,

then, altogether more richly and vividly descriptive than that of patient and recognises that there are two individuals within the clinical encounter, the person of the patient and the person of the clinician. Often and desirably so, a clinical encounter also involves the persons in the patient's family.

We view it unfortunate that the use of the nomenclature 'person-centered medicine' risks the accusation that such a term represents a further rhetorical addition to the already rhetorically over-burdened nature of health services. It is certainly true (as was and remains the case for 'evidence' in EBM) that the prefix 'person-centered' possesses a degree of rhetorical force, having an emotive component as well as a descriptive one [1]. It is, (as 'evidence-based' is in EBM), a pleonasm, a superfluous addition to the word 'medicine'. The PCM movement has, however, elected to employ the prefix 'person-centered', not for reasons of sensationalism or hubris (as characterised the inception and promotion of EBM) [59-61], but rather as a simple mechanism to remind medicine of its epicentre – the person of the patient – at a time when the centrality of the patient within healthcare has become displaced or ignored. As Miles and Loughlin [1] point out, when the arguments are won for a medicine informed by rather than one based on the E of EBM and where the person of the patient returns to the very centre of the clinical encounter, all such prefixes may then be detached from 'medicine', their usefulness and necessity having by that point become mercifully defunct.

Key principles and a working definition

Mezzich and colleagues from the International Network for (now International College of) Person-centered Medicine have elucidated the key principles of person-centered care as follows: (1) a wide, biological, psychological, socio-cultural and spiritual theoretical framework; (2) attending to both ill health and positive health; (3) person-centered research and education on the process and outcome of the patient-family-clinician communication, diagnosis as shared understanding, and treatment, prevention and health promotion as shared commitments; (4) respect for the autonomy, responsibility and dignity of every person involved & (5) promotion of partnerships at all levels [112,113]. The fundamental need for contextualization, cross-sectionally and longitudinally, is fully in accordance with philosopher Ortega y Gasset's dictum: *I am I and my circumstance*. Employing these key principles, a working definition becomes possible. Thus, the above authors describe PCM as a medicine *of* the person (of the totality of the person's health, including its ill and positive aspects), *for* the person (promoting the fulfilment of the person's life project), *by* the person (with clinicians extending themselves as full human beings, well grounded in science and with high ethical aspirations) and *with* the person (working respectfully in collaboration and in an empowering manner through a partnership of patient, family and clinicians) [112,113]. The value of this

definition is precisely in its ability to function as a template for ongoing methodological development in the field, a methodology that can draw fruitfully upon Tonelli's casuistic model among others and which will be employed as the basis of a major programme of international conferences and publications which we will describe later in advance of our conclusion.

Person-centered medicine: Utopian and unaffordable?

Writing in the inaugural edition of the *Journal*, we noted that some commentators view person-centered medicine as 'well meaning', but disconnected from the operational realities of health services, where patients' demands meet economic constraints, insufficiencies of clinical time and manpower, coupled with the rationing of, or a restricted access to, the benefits of therapeutic and technological advance [114]. Here, fears are often voiced that such an undeniably optimal and noble vision of clinical practice is frankly unaffordable within economically constrained health services, so that PCM is destined to remain an essentially Utopian ideal. It is, they argue, hardly consonant with the priorities of health service planners and commissioners who, if they have been unable to argue directly against *optimal* care, then they certainly have done so tacitly in speaking preferentially of *reasonable* population health. Moreover, these commentators ask, 'What would be the effects on an already stressed and over-stretched clinical workforce of the need to build and maintain far more developed clinical relationships with patients?'

We argue that these fears, where expressed, are generally unfounded. Correctly understood, PCM is not 'patient-directed medicine', where clinical decisions and resource allocation are determined by the patient himself. Is it not, then, as Epstein rightly emphasises, the 'mindless enactment' of a patient's desires [35]. On the contrary, within this model a clinical decision is made by two people, not one – and responsibly so. And where costs are concerned, accumulating health economic data indicate that PCM approaches can, via a plethora of mechanisms, act to *reduce* healthcare resource utilisation, while *maintaining* patients' quality of life and clinician satisfaction with care. Two 2011 studies are of immediate relevance in this context. In the first, Bertakis and Azari [115] employed an interactional analysis instrument to characterise patient-centered care in the primary care setting and to examine its relationship with health care utilisation. The authors report that patient-centered care was associated with decreased utilisation of health care services and lower total annual charges, so that reduced annual medical care charges may therefore represent an important outcome measure of medical visits that are patient-centered. In the second study, Ekman and associates [116] evaluated the outcomes of person-centered care approaches in patients with chronic heart failure (CHF) in terms of length of hospital stay (LOS), activities

of daily living (ADL), health-related quality of life (HRQL) and 6-month readmission rate. The authors' findings directly suggest that a fully implemented person-centered care approach shortens LOS and maintains functional performance in patients hospitalized with worsening CHF without increasing risk of readmission or jeopardizing patients' HRQL.

It is, then, for reasons such as these, that Miles and Loughlin [1] have argued that far from representing the 'poison chalice' of so-called positive resource implication, person-centered approaches to care may instead represent a 'golden chalice' for patients, clinicians, families, commissioners and politicians alike. Nevertheless, proof of concept studies remain rare and there is therefore an urgent need to augment the relative paucity of current investigations with further well designed and properly funded HSR programmes.

People-centered public health

We have so far talked in terms of a model of clinical practice centered on the person of the patient within the intimacy of the clinical relationship of patient and doctor, precisely tailored with direct reference to the unique needs of the individual. But an understanding of the relevance of such a model to modern clinical practice is incomplete without a parallel consideration of what has come to be termed 'people-centered public health' (PeCPH). We have elsewhere emphasised that patients exist within their circumstances and that these circumstances involve the patient's living with other individuals in Society as well as in his internal milieu [114]. To date, public health policy and strategy has been based on the results of biostatistical studies conducted on epidemiological populations and subpopulations, rather than through a focus on the characteristics of social communities constituted by individual persons. It is here that PeCPH, a major change of thinking and direction within public health, is rapidly augmenting such studies and complementing them with the eventual aim of better health for all.

The fundamental characteristics of people-centered public health have been articulated principally by the World Health Organisation and while key tenets of people-centered care were laid out in the original WHO Constitution [2], the concept of PeCPH and certainly the efforts directed at its operational implementation are the products of much later documents. WHO has in this context been clear that people have the right and duty to participate in the decision-making processes which affect their care, not only in terms of individual treatment and management, but in the much broader public health context of health care planning and the operational delivery of healthcare services [117-119]. More specifically, WHO describes people-centered care as encompassing a balanced consideration of the values, needs, expectations, preferences, capacities and health and wellbeing of all the constituents and stakeholders of a health system and has enumerated seven essential principles of the concept itself,

namely: equitability, engagement of stakeholders, empowerment, effectiveness, knowledge-centred and empathic, efficient and ethical. Moreover, its defining nature may be characterised by four principal characteristics: an absolute concern to create informed and empowered individuals, families and communities; a need to produce competent and responsive health practitioners; the imperative to establish efficient and benevolent health care organisations; the need to create supportive and humanitarian health care systems [120,121]. Ideally, then, PCM and PeCPH will continue to develop in parallel and in dialogue, as complementary and mutually reinforcing systems with a common eventual aim.

Challenges and horizons for person-centered medicine

To be sure, the development of the necessary models for the implementation and testing of person-centered models of care face many challenges and it remains a principal function of the International College of Person-centered Medicine (ICPCM) and the annual Geneva Conferences on Person-centered Medicine to identify and address these, now that earlier exercises in conceptualisation have been undertaken and advanced [122,123]. Building on the success of the first four Geneva Conferences and the documentation of their proceedings for universal use and also having completed a major exercise to develop measures to assess progress towards people-centered care in association with WHO, the ICPCM has already commenced the organisation of the fifth International Conference on Person Centered Medicine (5GC) which is scheduled to take place in Geneva during 28 April – 2 May 2012 and which will address in part some of the key arguments we have made here. Certainly, explicit guidance is required on what exactly constitutes person-centered care within given clinical circumstances and in the management of specific clinical conditions. Accompanying such guidance, there will be a need to develop a range of process and outcome measures to monitor the implementation and effectiveness of developed standards and guidelines and through which to fund and recognize the clinical institutions in which progress towards person-centered care approaches is taking place. Additionally, technological innovation in patient records will be needed and health economic analyses will also be required.

To assist this process, the ICPCM has recently approved the operation of an International Conference and Publication Series which will be operated in academic association with the WHO Collaborating Centre for Public Health Education and Training, Imperial College London. The Series will focus on the debate and development of person-centered models of care for a wide variety of specific clinical conditions, so that general principles can be addressed with specific questions. What, for example, does a person-centered model of care for the woman with breast cancer actually consist of? And how might it differ

from such a model developed for the person with HIV/AIDS or the child with acute lymphocytic leukaemia or the older person with Dementia? What are the costs of such models in terms of service reconfiguration and design, informatics and clinician time? How will the benefits be measured? Where a full implementation of such a model is not possible due to economic or human resource constraint such as, for example, in low or middle income countries, will a partial implementation suffice? And if so, what would that model look like? All of these questions are in urgent need of debate. The International Series will additionally focus on non-condition specific areas of study relevant to the provision of person-centered care, such as spiritual and religious care in clinical practice, values and preferences-informed care, narrative-enriched medicine, culturally-sensitive care, and so on. The programme will commence operation in 2012 on a forward rolling basis, with the documentation of proceedings in the form of special supplements to the *International Journal of Person Centered Medicine*. Further information on the International Series can be obtained directly from one of us (AM).

Conclusion

At the current time, global health services are engaging in a fundamental exercise in reflection on the urgent need to commence a re-personalisation of de-personalised healthcare practices [1]. This exercise has been stimulated by the expression of widespread concern by such bodies as the World Health Organisation [120,121], the World Medical Association [124], the World Organization of Family Doctors [125], the International Council of Nurses [126], the International Alliance of Patients' Organizations [127] and the Institute of Medicine of the National Academies of Sciences of the United States of America [35,36,128] at the appearance of a growing distortion in the priorities and ethos of medicine [129], where a reductive focus on disease processes and organ systems alone has led to the compartmentalisation of knowledge, the fragmentation of services and to documented increases in a frank neglect of patients' concerns, needs and values. Here, scientific medicine is becoming substituted by scientific medicine with an accompanying collapse in the imperative to care as well as to cure, so that the human dimension of medicine is becoming lost and with it the fundamental purpose of medicine: 'for the secret of the care of the patient is in caring for the patient' [3].

In the years following the publication of George Engel's biopsychosocial model of care, two conceptually differing movements of medicine have grown up: evidence-based medicine and also patient-centered care. We have argued that these two movements cannot, in the interests of patients and the medical profession itself, continue in parallel, but must achieve a rational form of integration. Here, we have discussed the need for the 'coalescence' to which Hartzband and Groopman refer, to allow the emergence of a model of clinical practice which

combines the strengths of both movements, but which dispenses with the weaknesses of each. In order to achieve such an integration, it will be necessary for EBM to undergo a *fifth* reconstitution [58], assimilating the results of two decades of scholarly discourse and interchange and through embracing the fundamental tenets of patient-centered care. Such a new model of clinical practice, unlike EBM, does not automatically preclude, but rather directly enables what Epstein has talked of in the context of patient-centered care as a 'deep respect for patients as unique living beings'. Unlike patient-centered care, however, person-centered medicine does not recognise an 'obligation to care for (patients) on their own terms' (with a clinician as a simple provider of goods), but rather within the context of a decision made by two people, the persons of the patient and the clinician(s), engaged in a mutual and dialogical process of shared decision-making, focussed on the patient's best interests, in a caring atmosphere, within a relationship of engagement, responsibility and trust. In doing so, person-centered medicine certainly ensures that 'patients are known as persons in (the) context of their own social worlds (where they need to be) listened to, informed, respected and involved in their care and their wishes honoured ... during their health care journey' [35]. Moreover, such a model powerfully reaffirms the dialogical basis of the profession of medicine [130], a prerequisite for the rediscovery of the 'soul of the clinic'.

While the philosophy that underpins person-centered medicine is applicable to all the specialties and subspecialties of medicine and to the healthcare professions more broadly, it is of very particular applicability and value in the management of chronic disease and thus to current and evolving healthcare contexts, where a dramatic rise in the incidence and prevalence of chronic diseases worldwide has become apparent [131] and which poses very serious challenges indeed for the funding, delivery and effectiveness of health services globally. In the context of these long term conditions, the old formula of 'diagnose, treat, cure, discharge' has become simplistic in large measure and newer, more 'fit for purpose' models of care are urgently in need of development for use. It seems clear to us, then, that the time is now right to institute a debate on the need to progress towards the formulation of personalised models of care *informed*, but not *based*, on the E of EBM, representing a Hegelian shift in understanding following some 20 years of intensive philosophical and clinical argumentation on the nature of knowledge and action in clinical practice. Without progress of this type, there is a real risk that the standards of healthcare will proceed inexorably downwards towards the lowest common denominator and such an outcome, as Miles and Loughlin argue, could hardly be considered a professional or moral ideal [1]. The annual Geneva Conference on Person Centered Medicine and the new International Conference and Publication Series on personalised approaches to healthcare are advanced as important initiatives in this context.

It has become clear that current models of health care are not fit for the future and that they are unsustainable in both economic and humanistic terms. There is a pressing need, therefore, articulated increasingly by patients themselves, to move away from impersonal, fragmented and decontextualized systems of healthcare towards personalised, integrated and contextualised models of clinical practice. We believe that if the current crisis in medicine is to be successfully addressed – a crisis of knowledge, care, compassion and costs - attention must be turned urgently to the development of methodologies that will enable affordable biomedical and technological advance to be delivered to patients within a humanistic framework of care that recognises the importance of applying science in a manner which respects the patient as a whole person and takes full account of his values, preferences, aspirations stories, cultural context, fears, worries and hopes and which thus recognises and responds to his emotional, social and spiritual necessities in addition to his physical needs. This is person-centered medicine, an emergent model of modern clinical practice for our times.

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