

## EDITORIAL INTRODUCTION

# Moving from a reductive anatomico-pathological medicine to an authentically anthropocentric model of healthcare: current transitions in epidemiology and epistemology and the ongoing development of person-centered clinical practice

Andrew Miles MSc MPhil PhD

Editor-in-Chief, *International Journal of Person Centered Medicine & Journal of Evaluation in Clinical Practice*; Director: International Conference and Publication Series on Person Centered Healthcare, World Health Organisation Collaborating Centre for Public Health Education and Training, Faculty of Medicine, Imperial College London UK & Visiting Professor: University of Milan, Italy; Medical University of Plovdiv and University of Sofia, Bulgaria; Distinguished Academician, National Academy of Sciences and Arts of Bulgaria/New York Academy of Medicine, United States of America.

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### Correspondence address

Professor Andrew Miles, WHO Collaborating Centre for Public Health Education and Training, Imperial College London c/o P. O. Box 64457, London SE11 9AN, UK. E-mail: [andrew.miles@pchealthcare.org.uk](mailto:andrew.miles@pchealthcare.org.uk)

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## Introduction

Two major processes of transition are currently occurring within international healthcare which present us with serious challenges but also, to be sure, with considerable opportunities. The first is the *epidemiological transition* from acute to chronic disease, where 63% of the 57 million global deaths in 2008 were due to chronic illness (principally cardiovascular and chronic respiratory diseases, diabetes and the cancers) [1,2], a percentage which, as we enter 2013, is probabilistically now significantly higher, since the trends in incidence and prevalence have remained upward. The second process of transition is the *epistemological transition* from medicine's reductive reliance on purely objective sources of evidence for clinical decision-making to its willingness, even enthusiasm, to embrace the largely subjective sources of evidence represented by so-called 'patient factors'. The former type of knowledge has been consistently emphasised by the evidence-based medicine (EBM) movement as constituting the *basis* of medicine [3] and the latter form of knowledge by the patient-centered care (PCC) movement as remaining *central* to the provision of effective and acceptable care [4].

As has previously been noted [5], EBM and PCC have developed chronologically in parallel, but have rarely entered into a functional dialogue, each preferring to look inward rather than outwards. Indeed, both have adopted an almost immutable stance when confronted with arguments for a revision of their core tenets as part of efforts to bridge their epistemological – almost *surreal* – differences, in

order that a more complete model of practice than each of the two models currently and independently provides can be synthesised and delivered to patients. It is confidently asserted here that the epidemiological and epistemological transitions, occurring together, are set to change the philosophy of modern medicine and thus its models of practice, in significant fashion – and very much for the better.

But how will such changes be realised? Certainly, medicine has remained in organic development for all of its history, recognising challenges and responding to them in, generally, a highly effective manner. Some such challenges have derived from within medicine's own ranks and others have been more external in nature. At the time of writing, medicine appears mired in an ongoing and unresolved crisis – a crisis which has been described in terms of a profound confusion in medicine's understanding of the types of knowledge vital to clinical decision-making; in terms of medicine's innate empathy, compassion and mandate to care; and, in addition, a crisis in terms of the spiralling costs of medicine's continuing scientific and technological advance [3,5]. These constitutive elements of the crisis are both internal and external to medicine, but collectively impact upon the profession and now, having achieved visibility and recognition, require urgent attention.

Within medicine, a crisis can be defined as a paroxysmal attack of pain, distress or disordered function, or a turning point for better or worse in, for example, an acute illness or a fever. Less clinically, a crisis can also be understood in terms of that which poses a *grave threat*, but

also in terms of a given episode of variable duration which brings with it a *great opportunity*. To appreciate the scale of the crisis represented by the epidemiological transition, the data and analysis of trends contained within the WHO Global Status Report [1] make sobering reading and assert and confirm the *grave threat* that the current epidemic of chronic illness now represents. In this context, overall mortality has already been quoted above, but what is staggering in addition is that one quarter of the global chronic illness-related deaths occur in people before they reach the age of 60 years.

This is an astonishing statistic, illustrating as it does the dramatic loss of human flourishing and life that these illnesses precipitate. It comes as little surprise, then, to read the Report's general conclusion that chronic illnesses are exacting an enormous toll in terms of human suffering, that they are inflicting serious damage on human development in both social and economic terms, that they run the risk of soon reaching levels that are beyond the capacity of all stakeholders to manage and that they are posed to bankrupt health services worldwide [1]. Urgent action has therefore been called for, with priorities for action and dates for evaluation of implementation and progress set out in detail in the Report itself and reviewed, emphasised and added to, at the 66<sup>th</sup> Session of the General Assembly of the United Nations in September 2011 [6]. An update on the epidemic is scheduled to be published in 2013, the results of which are likely to add significantly to the current state of global alarm. Let us now proceed to examine some key elements of the crisis in greater detail and to evaluate the potential *opportunities* that they may enable medicine to realize over the course of the coming decade.

## The depersonalisation and dehumanisation of modern medicine

Complicating the expanding crisis within medicine and increasing the gravity of the epidemiological transition even further is a peculiarly existential threat to medicine in our current time – the ongoing depersonalisation and dehumanisation of clinical practice. A wide variety of commentators have sought to explain this phenomenon and, while complex, there is general agreement on one principal observation: that the collapse in humanistic values in medicine appears to have occurred in parallel with the exponential increases in biomedical and technological advance of the last century and to date [3,5,7-9]. These, in turn, have led to an exaltation of the biomedical model of clinical practice, where a preferential fascination with the molecular and cellular basis of disease, organ dysfunction and technological innovation and intervention, rather than a fascination with the individual person who is greater than the sum of his corporal parts, has led to medicine's progressively losing sight of the human dimension of illness through an exclusionary preoccupation with the physical [3,5,7-13].

This modern tendency in medicine, to see the patient not as a *person* constituted by a unification and functional inter-relationship of the somatic, psychological/emotional and spiritual dimensions of what it is to be human, but rather to see the patient as an object or subject or as a complex biological machine [14], cannot, by its nature, avoid the descent of medicine into compartmentalisation, fragmentation and reduction. This process, already occurring, is actively resulting in a wholly mechanistic approach to treatment that confronts individual patients with a form of medical practice that is, in reality, radically incomplete.

## EBM has accelerated the depersonalisation and dehumanisation of modern medicine

EBM has, it is asserted, accelerated the process of depersonalisation and dehumanisation within modern medicine in significant fashion. It is not suggested that this has been an active stratagem of the EBM movement, but rather that it can be recognised as a notable side-effect. In affording primacy within clinical decision-making to data derived from intrinsically methodologically limited quantitative study designs, such as the randomised controlled trial and meta-analysis – and by actively denigrating the value of all other types of knowledge that are so vital to the practice of good medicine – EBM has demonstrated that it is, *de facto*, a disease-centric approach to the problem of illness, largely incapable of understanding the wider concerns and requirements of clinical reality.

In being what it is, EBM replaces medicine's terms of reference – 'to care, comfort and console' *as well as* 'to ameliorate, attenuate and cure' [5] – with its own anatomico-pathological terms of reference – a fixation for modification of the disease process alone, forgetting that the disease is part of the person and not the person part of the disease. Yet a daily encounter with the sick and suffering soon enables an inescapable recognition, as part of clinical experience, that the disease of which the patient becomes initially aware, by its nature, soon creates a *broader illness* and that it is attention to both the disease *and* the component elements of the broader illness, not to one or the others preferentially, that predisposes to excellence, *versus* competence, in clinical medicine – surely a truly vital distinction [15]. For reasons of this very distinction, it cannot be over-emphasised that clinicians must strive to understand what the disease and its resulting broader illness means subjectively to the patient – and not what the patient's presentation means objectively to themselves as practitioners [16-23].

## EBM and the patient as a complex biological machine

Unlike some basic biological scientists, few EBM protagonists would venture into agreement with Frankl that

“Man is nothing but a complex biochemical mechanism powered by a combustion system which energizes a computer with prodigious storage facilities for retaining encoded information” [24]. Nevertheless, naturalistic visions of the type held by EBM, which continue to see the ‘body as a complex biological machine’, cannot possibly do justice to human nature and agency as Habermas explains [25], so that the continued objectification of the somatic by EBM remains fundamentally problematic. As Heidegger makes clear, science by its nature cannot *think* [26]. Indeed, within medicine, science is simply a process of investigation which produces data and whether those data derive from RCTs and cumulative study designs such as meta-analyses or from other sources, such data require ‘clinical thinking’ - which is to say a contextual interpretation and assessment for potential usefulness and application in the individual patient case [27,28].

It is for this reason that clinical expertise and experience in medicine, so vilified and denigrated by EBM in its early incarnations, have proved ineradicable, forcing EBM, in grudging recognition of this fact, through four successive reconstitutions over the last 20 years. Thus, we have seen the protagonists of EBM gradually coming to admit - over considerable time and following extensive argumentation and counter-argumentation [29] - that *evidence alone is insufficient for clinical decision-making, that clinical expertise is essential in making sense of statistical data and that patient values are required in addition to clinical expertise* [30].

EBM and its identification of patient values as ‘vexing’, ‘distant goals’

While the shift in EBM’s positioning that is vividly illustrated immediately above is extremely welcome, it remains highly noteworthy that EBM, even in its fourth remodelling [30], continues to see the integration of patient values into biostatistically-based decision-making as a “distant goal” [31] and that it has formally - and extraordinarily - admitted that it finds the question of *how* to integrate patient factors under conditions of a primacy for biostatistical data in the making of clinical decisions, “vexing” [32,33]. That biostatistical evidence should trump the wide range of patient factors vital to the making of a good clinical decision for securing patient-desired outcomes when patient preferences and goals conflict with clinical recommendations derived from biostatistics, is an odd and worrying thesis. Such a thesis remains deeply ideological and formally scientific, giving grounds for serious ethical concern in terms of its direct reinforcement of clinical paternalism and its effective disregard of patient autonomy [34-38].

For the patient-centered care movement, EBM’s clearly *secondary consideration* of patient factors - necessary to maintain an ideological primacy of biostatistics in decision-making - remains deeply troubling. While patients themselves reasonably expect their clinicians to offer them an up-to-date account of the variety of treatment options available to them and where clinicians are ethically bound to ensure that they are able to do so,

patients do not expect a decision to be made for them in a manner which fails to elicit and employ their personal preferences and concerns. Indeed, that decisions about patient care and the strategies necessary to secure their desired health outcomes and goals should be directed by a primacy of biostatistical knowledge in ideological isolation from other sources of knowledge in order for the EBM thesis to operate, is a notion that is increasingly unacceptable and, consequentially, increasingly and rightly, subject to rejection. This is, undoubtedly, a sign of progress and therefore to be welcomed, emphasising as it does, a supremacy of the foundational importance of human factors in clinical decision-making over and above data derived from biostatistical science, data normatively formulated by biostatisticians and epidemiologists: scientists who are *contextually remote* from the realities and humanity of the clinical encounter [34-38].

This, then, is the *fatal* Achilles heel of EBM: its continuing inability to understand - and thus its inability to consider - the foundational relevance of patient factors when these conflict with EBM’s biostatistical basis and linear decision-making framework [29]. It is precisely these inabilities - despite EBM’s ‘politically necessary lip service’ to the importance of patient factors - that limit its usefulness within clinical medicine so profoundly and which are, in parallel, leading to EBM’s increasing self-marginalisation, such that it has been stated that we should now and urgently for these reasons move beyond EBM to a more coherent account of clinical medicine that is more fully equipped to deal with the challenges of our time - the ‘fashion’ of EBM having all but run its course [39,40]. So what, then, is to be done? How can we respond to the epidemic of chronic illness in practical, methodological terms?

Chronic illness: a time of *epidemiological* and *epistemological* transition and an opportunity to develop a new ‘fit for purpose’ model of clinical practice

The epidemiological transition from acute to chronic illness confronts clinicians in most cases with a complex clinical presentation of multiple co-morbidity, moderate to severe disability and shorter life expectancy, where the formula of ‘diagnose, treat, cure, discharge’, so typical of the approach to the investigation and treatment of single, acute conditions, is utterly inapplicable. It may therefore be argued that the new challenge to modern medicine represented by the epidemic of chronic illness requires by its nature an entirely different - and *new* - model of practice. And it is here that we see a necessity for and, indeed, an active occurrence of, an *epistemological* transition accompanying its *epidemiological* counterpart.

If it is accepted that a new model of clinical practice is indeed required, it is because patients with chronic illness typically live with their conditions for highly extended

periods of time and describe a multiplicity of needs and requirements which go well beyond mechanistic interventions to control disease progress and exacerbations. These 'other' needs and requirements are typically psychological, emotional, spiritual and social in their nature. A model of care which attends directly to those needs, must, therefore, go beyond the simple employment of technical investigations and pharmacological treatments alone. It must not only recognise the need to be able to do so philosophically, but must also have the inherent flexibility to function accordingly in a methodological sense. Here, the ability to draw on a wide range of sources of knowledge for clinical decision-making, not simply biostatistical evidence of treatment effect size [3,5], is therefore incontrovertibly foundational, without which ability such a model of care would be radically diminished and practically useless.

### Building a new model of clinical practice for attending the patient with chronic illness

It has previously been contended that both EBM and PCC have greatly enriched the understanding of the profession of medicine, but that each model remains of itself essentially incomplete as a coherent account of the unique undertaking that is clinical medicine and that a rational form of integration should take place between them [3,5]. Certainly, exhortations to integrate these two movements are not new and have been based on a range of profound concerns [41-44]. Given the epidemic of chronic illness worldwide, a need arises, therefore, to isolate the relative strengths and weaknesses of the EBM and PCC models and to combine the strengths (only) in a manner that is beneficial to patients and acceptable to clinicians, given that both patients and clinicians constitute the centre of care, not one or the other in isolation [5,45]. Here, key elements of EBM (e.g., continuing translation of professionally accepted biostatistical evidence and technological progress into practice) might be preserved, while other core tenets of that model (e.g., data from a hierarchically ordered system of quantitative research methods as constituting the basis of medicine and clinical decision-making) would be rejected. Likewise, for PCC, some core principles of PCC (e.g., shared decision-making, patient-defined clinical outcomes and personal goals) might be retained, while other core characteristics of this model (e.g., a consumerist patient-directed care, the clinician viewed as simple provider of goods), might be abandoned [5].

### Epistemological changes necessary to secure a person-centered model of clinical practice

In order to participate in the securing of the authentic development of clinical medicine that is person-centered clinical practice, it is difficult to see how EBM can escape the necessity for a fifth reconstitution (beyond its current

and fourth metamorphosis), as part of which its vertically ordered hierarchy of evidence is rotated 90 degrees, as it were, to become fully and thus non-hierarchically horizontal. When such a *horizontally ordered library of clinical knowledge sources* to inform clinical decision-making is created, several additions must be made to it and these will be largely qualitative and directly person-related in their nature. None can be given greater weight than another, given that the usefulness of the given knowledge source(s) will depend on the unique circumstances of the individual patient and his/her expected outcomes and goals. It is of course recognised that such a major revision of EBM's epistemology will necessitate a great sacrifice of its original foundational principles. Unfortunately for EBM, there is no real *via media* available to it through which it can seek to preserve its ideologies of hierarchy - and overt scientism - in this context. This, then, is the *great opportunity* represented by medicine's crisis - the opportunity to move away from the rigid and hopelessly reductive epistemology of EBM that has dominated - and greatly impoverished - medicine in recent years, towards an epistemology that directly enables person-centered clinical decision-making and treats patients as *persons*, not complex biological machines. We have, then, the opportunity to move from an evidence-based to an evidence-informed way of 'thinking' and 'doing'.

### Efforts to secure progress

The new model of clinical practice envisaged by Miles [3,5] is intended to progress the concept of a 'person-centered' approach to illness beyond a purely theoretical framework dominated by the repetitive institutional rhetoric of recent years, towards the debate and development of illness(es)-specific models of care that can be formally evaluated for use in practice. Having established the *International Journal of Person Centered Medicine* as the major organ of international communication in PCM and having launched the *International Conference and Publication Series on Person Centered Healthcare* [46,47], two flagship developments intended to drive major progress in the debate and realisation of pragmatic models of PCM for operational implementation within health services, sustained attention must now be devoted to the development and use of person-centered teaching programmes within the medical undergraduate and postgraduate training years and in clinical curricula more generally. Since evidence suggests that the early idealism associated with medical school entry begins to diminish in Year 3, the importance of employing appropriate teaching interventions before this time is self-evident. In addition, it has been suggested that more sensitive entry selection criteria might also be substituted for those that are currently in place, so that only those students with a high degree of commitment to humanistic healthcare are selected from the large body of students that apply for entry [48]. Such initiatives are already underway within Europe and will be documented within the IJPCM shortly.

But will the large scale initiatives described immediately above, even employed collectively, be sufficient to drive the scale of change that is required if we are to arrest the ongoing trajectory of depersonalisation and dehumanisation in healthcare and then to work to reverse it? The answer is probably in the negative and further steps will need to be developed and implemented to secure the future of PCM in the direct interests of patient care and clinical professionalism. In the opinion of the present author, these will be represented by the implementation of person-centered care prompts within the illness(es)-specific clinical practice guidelines which are increasingly developed by specialist clinical associations and governments at international as well as regional and national level. Only by introducing accepted PCM guidance alongside and in integration with the biomedical and technical prescriptions of such practice guidelines – and with audit indices developed and utilised in parallel in order to be able to analyse their use or non-use – will we begin to see a ‘joined up’ and more systematic approach to dealing with the collapse in humanism that has been precipitated by over a century of empiricism in healthcare [48].

The operational realisation of such a vision (in overdue substitution for the rhetorical displays of recent years), is a considerable task beyond the natural abilities of any one individual and requires by its nature a development and extension of leadership within the current International College of Person Centered Medicine (ICPCM) at international *and* regional *and* national levels or, alternatively, the erection of a separate and complimentary body that could be designed and equipped to rise to this task.

## Conclusion

In seeking to apply science with humanism, *via* clinical judgement, within an ethical framework, PCM can legitimately claim to be evolving consequentially out of the intersection of all four components of an authentic medicine. Such a new model of practice aims to be far more ‘fit for purpose’ and responsive to the needs of the individual patient and his/her personal circumstances than can either EBM or PCC functioning separately, so that neither a reductive anatomico-pathological, disease-centric model of illness (EBM), nor an aggressive patient-directed, consumerist form of care (PCC), is allowed continued dominance within modern healthcare systems. The mechanics of how such an ‘integration’ or ‘coalescence’ might take place are currently the subject of intensive philosophical and methodological enquiry, but the overall aim is to create a model of medicine which enables affordable advances in biomedicine and technology to be delivered to patients within a humanistic framework of clinical practice which recognises the importance of applying science in a manner which respects the patient as a person and takes full account of his/her values, preferences, goals, stories, cultural context, aspirations, fears, worries and hopes and which thus recognises and

responds to his/her emotional, psychological, spiritual and social necessities in addition to his/her physical needs [5]. That such a model of care is to be delivered to patients with compassion and empathy and within an ethically intimate clinical relationship employing the core principles of shared decision-making is, within such a model, axiomatic.

PCM should not be superimposed on current practice, less so juxtaposed alongside it. Rather, the aim is to transform healthcare, so that current practice is not modified or contrasted in this way, but rather transformed. It is the tenacious pursuit of such transcendent humanism in healthcare that must remain a key feature of the PCM movement. In addition, we must strive to demonstrate empirically what we believe probabilistically to be the case – that PCM is a superior model of care to the EBM and PCC models in their current forms. For this, primary and secondary research and the development of the necessary evaluative methodologies will be crucial.

There is no suggestion that the person-centered care movement seeks to establish one, singular, rigid, superior and ‘unified’ model of clinical practice that can be formulaically described, prescribed and commissioned. On the contrary, medicine works best as a practice informed by a variety of sources of knowledge and warrants for decision-making [5] and the profound heterogeneity of the individuals and populations it serves utterly precludes a ‘one size fits all’ model, much to the frustration of those who would seek to impose a standardised form of clinical action in the interests of reductions in clinical practice variations and cost containment and control. However, by attempting to arrest the depersonalisation and dehumanisation of clinical practice and then to reverse it and by being, fundamentally, a moral enterprise [13], the development of PCM may come to warrant Pellegrino’s description of a model of care that represents ‘the most humane of the sciences, the most scientific of the humanities’ [48-50]. With such notions duly considered, it is confidently predicted that the development and operationalization of PCM as an authentically anthropocentric model of healthcare, is set to become one of the defining features of 21st Century Medicine [29].

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