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Defining professionalism in medical education: a systematic review

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Abstract

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Methods: Eligible studies included any articles published between 1999 and 2009 inclusive presenting viewpoints, opinions, or empirical research on defining medical professionalism.

Results: We identified 195 papers on the topic of definition of professionalism in medicine. Of these, we rated 26 as high quality and included these in the narrative synthesis.

Conclusion: As yet there is no overarching conceptual context of medical professionalism that is universally agreed upon. The continually shifting nature of the organisational and social milieu in which medicine operates creates a dynamic situation where no definition has yet taken hold as definitive.

Practice points

- The literature reflects a considerable difference of opinion as to what defines professionalism in the context of medicine

- Conceptual overlaps exist between professionalism, humanism, and personal and professional development (PPD)

- Major conceptual divides are over whether professionalism should be viewed as a set of attribute or as an overarching ethos grounding an approach to medical practice

Introduction

"I do not strive for a clear and unambiguous definition of "professionalism" because I do not believe one is possible" (Erde, 2008 p. 7).

The issue of professionalism (Huddle 2005), or humanism (Swick 2007), as it is variously known, in medicine has received increased attention in medical education over the past several years. To some professionalism means defending the profession against external threats, particularly corporatized health care in the US. To others, it is the art that complements the science in an effective, well rounded physician. DeWitt Baldwin considers professionalism as a "value-oriented ideologically based construct" (Baldwin 2006, p. 103). Freidson saw professionalism as "independence of judgement and freedom of action" (Freidson 2001, p. 122). There is now a vast literature on the subject, but still no clearly resolved definition, let alone teaching or assessment methods.

The traditional elements of a profession are

- autonomy in action and self-regulation by members of the profession

- an identified moral code developed by those with in the profession, to which all pledge (vow) to adhere,

- a separate, distinct place (status) within but at the same time outside of the society in which they practice,

a particular corpus of knowledge, developed and maintained from within the profession, which serves as the basis for practice (Freidson, 2001, Krause, 1996, Bloom, 2002, Freidson, 2004)

Our team undertook a systematic review and qualitative meta-synthesis of the literature to examine the state of knowledge of professionalism and identify the best evidence for how professionalism should be defined. Our aim was to identify a complete and unbiased body of evidence including a broad range of studies. We included descriptive papers to capture information about current practices and to provide context. Both qualitative and quantitative studies were reviewed.

We treated the issue of the definition of professionalism as an emerging issue in medical education that would benefit from holistic conceptualisation and synthesis of the literature to date (Torraco 2005). We have therefore employed an integrative literature review (Whittemore & Knafl 2005) methodology, integrating analysis and synthesis.

Our research question was: How is professionalism conceptualised by medical practitioners, medical teachers, and their students, and how has this concept developed through the literature over the past 10 years?

Methods

Conceptual framework of review

The purpose of this review is to capture the current conceptualisation of professionalism in medicine. Therefore, we opted for a descriptive analysis of the existing literature, and the results are more interpretive than integrative (Oliver et al. 2005; Tricco et al. 2011; Greenhalgh et al. 2005). We referred to the Centre for Reviews and Dissemination (University of York 2009) and the Best Evidence in Medical Education (BEME) guidance publications (Hammick et al. 2010; Harden et al. 1999; Hammick 2005) for guidance in developing the review.

We sought to identify key papers that have contributed substantially to the conceptual and theoretical development of professionalism. Our attempt was to identify a construct of professionalism; a comprehensive definition of medical professionalism that is more than a list of attributes (Cruess et al. 2004), and which can be measured directly, without the need to rely on proxy measures (Jha et al. 2007). Our primary desired outcome was a comprehensive, universally accepted definition of medical professionalism. Our secondary outcome was a closely argued view, widely accepted, concerning what such a definition should consist of.

Search strategies

Several members of the review group had personal bibliographies of professionalism, including over 700 citations. These were used to estimate sensitivity and specificity of search strings in preliminary scoping searches, and were added to the bibliographic database before the first search results. The initial search string was modified from that of Jha et al. (2007). As they

were looking at a narrower range of professionalism studies, search strings developed for this

study were broadened through three iterations of pilot testing, observing the results of

different filtering strategies until apparent sensitivity and specificity appeared to be optimised.

The search string was deliberately set to err on the side of maximising sensitivity without

producing an unreasonable number of abstracts to review. Table 1 lists search strings used for

each database.

Table 1 about here.

Databases searched included Medline, the Cochrane collaboration, Excerpta Medica (EmBase),

PsycINFO, Proquest, Informit, legaltrac, Philosophers Index, PreMedline, Dissertation and

Theses Full Text. Libraries Australia, the British Library, Library of Congress (US) and

www.Amazon.com were searched for books. The search period was 1999-2009 inclusive (10

year period). Table 2 presents yield by database for these searches.

Table 2 about here.

The team used EndNote X2 (Thomson Reuters. Available: http://www.endnote.com/.

2010) as a reference manager to create the bibliographic database for this project, migrating to

X3 in April 2010.

Inclusion criteria

Any articles presenting viewpoints, opinions, or empirical research into the conceptual basis of

medical professionalism identified through the search methodology, were considered subject

to the following criteria:

- Any language

- Qualitative and/or quantitative research methods

We purposely kept selection criteria broad at each stage of the review, as we were seeking a consensus voice across a very heterogeneous literature. Editorials and opinion pieces had the potential to be very influential in the evolving debate about what constitutes professionalism, and the research question (how is professionalism defined) does not lend itself to traditional study design types except for quantitative surveys or qualitative designs, and so the effort was to cast a wide net across the ten years of literature searched.

Exclusion criteria

Papers focusing on professionalism in professions other than medicine were excluded. Since we were searching for evidence of a universal definition, we also excluded, papers focusing on a single component attribute of professionalism and papers focusing on professionalism in subspecialties of medical practice.

Review of abstracts

One of the strengths of systematic review methodology comes from involving multiple people in the process, especially in evaluating abstracts and papers against inclusion/exclusion criteria (White and Schmidt 2005, p. 56; Higgins and Green 2011). Bringing multiple professional perspectives to the effort, as well as just the fact that two heads are better than one, adds rigour to the process.

Each abstract was reviewed by two reviewers. In the case of disagreement, the two reviewers conferred and came to consensus. If there had been an inability to achieve consensus, a third

reviewer would have broken the tie, but this did not occur. Inter-rater agreement on whether to keep or reject individual abstracts ranged between 85- 90%, Kappa between K=0.69 and K=0.80.

Abstracts were removed from further consideration if they were not relevant to the topic, and so were permanently removed from the database. An electronic copy of the total bibliography of 3522 abstracts, indicating those kept and deleted, was retained for reference.

Hand searching

Hand searching was carried out in the following journals:

- Medical Teacher

- Medical Education

- Academic Medicine

- Education for Primary Care

- Clinical Teacher

This search contributed one new paper to the total.

Reference list (ancestry)

Reference lists from all papers meeting quality criteria were reviewed, with relevant papers identified and obtained.

Citations (progeny)

The most productive source of relevant papers for the review that were not obtained from the initial search or team members' libraries consisted of 'cited by' searches carried out in selected seminal papers, some of which were published before the time period covered by this review. For example, Hafferty's 1994 paper on the 'hidden curriculum' has been cited 277 times at date of this writing. Among its' progeny were five relevant papers not captured in the initial searches or hand searches.

Grey literature

The most prominent authors in this area were contacted with a request for 'grey literature': conference proceedings, unpublished studies, internal reports, etc. This search did not contribute any new papers to the total.

Paper selection and classification

For accuracy and transparency, two people independently assessed each paper for eligibility for inclusion in synthesis, and, concurrently, for quality. Papers rejected were moved to a separate database and retained. Papers were excluded if they were not on the topic (definition, teaching or assessment of professionalism in medicine), focused on a narrow specialty/discipline within medicine or a single attribute of professionalism, or focus on a profession other than medicine.

As there was considerable heterogeneity among the studies included in the review (and very little quantitative analysis), we could not undertake a meta-analysis. We also rejected the

approach of a comparative and thematic synthesis, essentially a qualitative meta-synthesis (Sandelowski et al. 2007).

In order not to reject key insights of this type out of hand by restricting the data synthesis to reviews of a particular design type (Edwards et al. 1998), we included viewpoint and opinion pieces as well as empirical research. In fact, the vast majority of the literature on medical professionalism is of this type. Therefore, a narrative synthesis emerged as the method best suited to synthesising this large and disparate body of knowledge.

This method is more appropriate than thematic analysis when synthesising different types of evidence (qualitative, quantitative, viewpoint, and for purposes such as this, where a rich description of a literature, rather than development of theory, is the objective (Lucas et al., 2007). We used the Institutes for Health Research UK Economic & Social Research Council ESRC Narrative Synthesis Guidance Document (Popay et al., 2006) to guide our methodology. There is a growing body of literature on techniques for combining different types of evidence in a systematic review (Oliver et al. 2005; Harden et al. 2004; Pawson et al. 2005; Dixon-Woods et al. 2005), although this evolution is very much a work in progress, with no established consensus on how to establish quality (Dixon-Woods et al. 2007; Ring et al. 2011, p. 13). We modelled our methodology on techniques emerging from this literature. After experimenting with several critical appraisal tools, we opted for a semi-structured analysis with unprompted judgement (Dixon-Woods et al. 2007) for quality evaluation, inclusion in the final set of papers for review, and synthesis of evidence. In this method, the reviewers rely on their collective professional judgment to assess the worth of a given study, looking at studies in a holistic manner rather than focusing on methodologic and procedural aspects.

As a quality criterion for inclusion in data synthesis, we only included papers for which the review team could collectively agree on the answer 'yes' to all twelve of the "Questions to ask of evidence based on experience, opinion, or theory" put forth in the first BEME Guide (Harden et al. 1999, p. 557).

We developed an instrument to aid us in the determination of quality and addition to the synthesis, taking into account QUEST dimensions (Harden et al., 1999) as used previously for BEME reviews such as this. Table 3 presents the data quality assessment tool we developed for this study (definitional papers).

Table 3 about here.

Citation counts were identified for each paper as of April 2010. Citation counts were obtained from the SCI Web of Science. Focusing on citation counts is problematic. On the one hand, it is a standard indication of the influence of a particular work in a body of literature. It is expected that highly cited publications will be more likely to be further cited (de Solla Price 1976). However, this can be due to several factors, some of them negative. An important paper with seminal ideas will be cited extensively, and rightly so. But a controversial or flawed paper may also be highly cited by subsequent authors who challenge or refute the findings or assertions in it. An author is compelled to cite her/his own prior work, either because their recent work builds on older work or because in the academic world increasing your citation count is a necessary factor in promotion.

Results

Electronic searches identified 3522 references, of which 1077 were kept after abstract review.

Of these, 753 were duplicates of papers previously identified, 43 were from progeny (citation)

lists, and 25 were from ancestry (reference lists). This supports Greenhalgh's contention that

for complex areas, traditional search strings are not enough (Greenhalgh and Peacock, 2005)

Full text copies were obtained and reviews of all papers identified as being relevant through

abstract review. Of these, we identified 195 studies meeting inclusion criteria on the topic of

definitions of professionalism.

Of the 195 papers on the topic of professionalism, we rated 26 as best evidence for inclusion in

data synthesis. **Figure 1** presents the flow diagram through the review process, indicating

numbers of records reviewed and retained at each stage.

Figure 1 about here.

Outcome 1: comprehensive, universally accepted definition of medical professionalism: No

such definitions were evident in the literature.

Outcome 2: closely argued view, widely accepted, concerning what such a definition should

consist of. See below.

Most papers on the definition of professionalism were viewpoints or opinion pieces. The few

qualitative and quantitative studies sought to identify consensus or meaning of professionalism,

and how it is practiced, in various groups (students, medical faculty, practicing doctors). Highly

cited papers are listed in **Table 4. Table 5 l**ists papers by study type. **Table 6** presents countries

from which the most highly cited definitional papers came from. **Table 7** lists journal in which

high quality papers appeared. **Table 8** summarises some of the major conceptual definitions

for professionalism in medicine.

Tables 4-8 about here.

Overview of literature

Despite over twenty years of intense scrutiny and rumination in the medical literature, there is still a lack of consensus as to what defines professionalism (Hafferty 2006b; Hamilton 2008; Jotterand 2005; Van De Camp et al. 2004). Even the UK Working Party on Medical Professionalism, tasked to develop such a definition, given ample resources to do so, and including the leading thinkers in medicine and medical education in the UK, conceded that "an easy definition of 'professionalism' eludes us" (Tallis et al. 2005, p. 8), and consider their work to be a framework document, not a manifesto. Swick argues that "[t]he complexity of contemporary medical practice drives the complexity of medical professionalism and confounds a simple, universally accepted definition" (Swick 2007, p.1022). Sylvia Cruess sees professionalism as a social contract with society (Cruess 2006).

Firstly, the question of whether there is a distinction between the concepts of 'personal and professional development' (PPD) and 'professionalism'. It could be argued that the former is primarily a means to an end and that professionalism is a set of acquired traits, not a set of innate personal attributes (Baldwin and Daugherty 2006). However, the terms are used almost interchangeably (see for example, (Parker et al. 2008; Gordon 2003). No fundamental distinction between these terms exists in the literature, hence the terms are essentially synonymous.

Rabow and colleagues, from the University of California San Francisco, where The Healer's Art professionalism elective was established in 1992 (Remen and Rabow 2005), prefer the term

'professional formation'. They argue that this term integrates students' "individual maturation with [their] growth in clinical competency, and their ability to stay true to values which are both personal and core values of the profession" (Rabow et al. 2010, p. 311). In their view this "resonates with medicine's current focus on the skills and commitments of the profession", and is analogous to the parallel concept of 'formation' in the clergy- one of the other traditional 'professions'.

The University of Washington deleted the word professionalism from its curriculum in 2005, replacing it with professional values, in response to complaints from students that the word was overused (Goldstein et al. 2006).

Levine, Haidet, and colleagues (2006), in a prospective qualitative study clearly designed to measure what would be deemed 'professionalism' labelled their outcome measure 'personal growth'. However Smith (2005) thinks this term is so vague as to be meaningless.

There is considerable overlap, or at least a vagueness of definition leading to confusion of usage, between professionalism and the concept of humanism. Humanism in medicine (Markakis et al. 2000; Marcus 1999; Misch 2002) has been defined variously as "the application of science in recognition of human values and in service of human needs" (Kumagai 2008, p.653) and "the physician's attitudes and actions that demonstrate interest in and respect for the patient and that address the patient's concern's and values" (Branch et al. 2001, p. 1067). Swick (2007) offers a conceptualisation that emphasises that each can enrich the other as complementary (but distinct) attributes of excellence in medical practice, each enriching the other. He suggests that they be integrated in medical education curricula. Gracey et al. (2005) studied ways of teaching humanism without seeing a need to define the term, apparently taking it as a given that the meaning was clear.

Baldwin (2006) compiled a list of attributes associated with professionalism/humanity/morality/spirituality, then presented his list to colleagues, asking them to identify which of the four constructs they would place the attribute in. He found a high degree of overlap in these "value-oriented ideologically based constructs" (p. 103), with 35% being assigned to all four. He asks, not rhetorically, "[h]ow can a particular quality that is so important and highly regarded be learned and successfully attained if it cannot be defined and measured with the precision of the rest of science and education?" (p. 104).

Also focusing on a definition based on discrete attributes, Brownell and Côté (2001) asked senior residents (registrars) what they thought professionalism was, and got a list of 1,052 attributes, which condensed into 28 groups. These overlap, but do not exactly coincide with, attributes included in other lists. Since their respondents were at a stage of their career where they have attained the role of expert practitioner, and so are continually engaged with clinical decision making, ethical issues, and direct patient care, their concept of professionalism is drawn from that reality of practice.

Goldberg also sees a distinction, and worries that a careless conflation of humanism with professionalism devalues the former, as the latter, in his view, is merely the culturally determined practices of a privileged elite (Goldberg 2008). For him: "humanism is too precious to be swallowed up by pretentious professionalism" (p. 721).

Cohen differentiates humanism from professionalism (Cohen 2007). Humanism, he argues, is a set of beliefs, convictions, or virtues, including altruism, compassion, and respect for others. Professionalism, by contrast, is a set of actions and behaviours (that can be influenced by humanism). An important aspect of the distinction he makes is his argument that doctors could

act as professionals because they know that they are supposed to, without actually believing in the intrinsic worth of doing so. To him,"[h]umanism provides the passion that animates authentic professionalism" (p. 1029).

Stern et al. (2008) also attempt to offer a differentiation between professionalism and humanism before proceeding to describe how best to teach 'humanism'. Citing the Cohen quote mentioned above (Cohen is a co-author in this work), they review the distinction from the Hippocratic oath through recent American professional societies and regulatory bodies' work. They see professionalism associated with actions and behaviours, humanism with a set of beliefs that influence those actions and behaviours. (p. 496).

Huddle equates professionalism with medical morality (Huddle 2005). She argues that the truest test of moral fibre lies not in seeing the right moral stance in the difficult cases usually presented in ethics tutorials in the established curriculum. Rather, it lies in the choice of actions made by practicing doctors under system-imposed stresses (time pressure, paperwork) and internal stresses (time pressure, family issues, fatigue, hunger) in mundane, routine patient encounters. The proving ground is even tougher during training, as students have to answer to the faculty and supervisors as well as perform (albeit under supervision) within the system.

Hilton and Slotnick (2005) consider professionalism to be "an acquired state, rather than a trait" (p. 59). They identify six domains of professionalism. One set of these consists of personal (intrinsic) attributes, including ethical practice, reflection and self-awareness, and responsibility/accountability for actions (including commitment to excellence/lifelong learning/critical reasoning. The other set constitutes co-operative attributes such as respect for patients, working with others (teamwork), and social responsibility. While many of these

domains are life skills useful in any social interactive occupation, Hilton and Slotnick suggest

that they encompass the scope of medical practice and propose a simple follow-on definition of

professionalism as 'a doctor who is reflective and who acts ethically'(p. 61), assuming

consensus definitions of 'reflective' and 'ethics'.

A collaboration convened in 2002 between the American Board of Internal Medicine

Foundation (ABIM), the American College of Physicians Foundation, and the European

Federation of Internal Medicine, named the Professionalism Charter Project (Sox et al. 2002;

Smith et al. 2007; Brennan et al. 2002; Blank et al. 2003; Blank 2002; ABIM Foundation and

ACP-ASIM Foundation European Federat Internal Med 2002), developed a working definition of

professionalism, an "operational definition of medical professionalism rooted in prevailing circumstances"

(Cohen 2006, p. 609), and a set of guidelines for its teaching and evaluation. Their Physician

Charter, which has been dubbed a "modern-day Hippocratic oath" (Rabow et al. 2009)

identified three fundamental principles of professionalism

- primacy of patient welfare

- respect for patient autonomy

- commitment to social justice (Sox et al. 2002)

The Charter follows a long tradition of the medical profession establishing professional codes of

conduct for its members (Sox 2007). This work is heavily cited, and so may be considered a

turning point in the emergence of professionalism as a field of focus in medical education, if not

the beginning of the formal debate.

However it is not without its critics, who see it as disingenuous or vague (Jotterand 2005; Van

Rooyen and Treadwell 2007). It is also difficult to find a difference made by the Charter in either

the practice or teaching of medicine. Wear and Nixon (2002) point out a fundamental, and

revealing, poor choice of wording used in the seminal and oft-cited ABIM Project

Professionalism manifesto (ABIM Foundation et al. 2002). The word that ABIM used to describe

the process of introducing professionalism to medical students is *inculcate*, which, as Wear and

Nixon point out, denotes a forceful, top down method. They prefer *foster*, with its more

enlightened and egalitarian connotations.

Van Rooyen and Treadwell (2007) report on a qualitative study in which South African medical

students found that the Physicians' Charter definition was not particularly relevant there due

to the mix of cultures and language, and the sharp divides in social class and religion in that

country.

Medical trainees surveyed by a working party convened by The Royal College of Physicians

defined medicine as "a profession which is learnt through apprenticeship and defined by responsibility

towards patients, and which requires qualities such as altruism and humility" (Chard et al. 2006, p.68). The

(UK) General medical Council sought to operationalize this definition in their Good Medical

Practice (Irvine 1999; Irvine 2001). Rothman (2000) took a similar operational approach for the

US context, emphasising the particular structural barriers to best practice inherent in the US

health care system.

Wilkinson et al. (2009) performed a thematic analysis of definitions of professionalism as part

of a review the aim of which was to link assessment methods with attributes of

professionalism. They identified five major themes in the definitions they reviewed: "adherence

to ethical practice principles, effective interactions with patients and with people who are important to those

patients, effective interactions with people working within the health system, reliability, and commitment to

autonomous maintenance / improvement of competence in oneself, others, and systems" (from the abstract).

They found self-reflection to be an attribute common to nearly all definitions.

Erde, agreeing that there is still no clear definition, adds that he does not think that one is possible (Erde 2008). His premise is that a broad term such as 'professionalism in medicine', which must of necessity include within its meaning a range and depth of complexity, cannot do justice to that complexity in being truncated, cannot "include…all it should and exclude…all it should" (p. 8), and then ends up being used as a slogan, used by "insiders" "mindlessly and inappropriately". He attacks the prominent definitions on semantic and philosophical grounds.

The definition created by Cruess and colleagues (2004), "Profession: An occupation whose core element is work based upon the mastery of a complex body of knowledge and skills. It is a vocation in which knowledge of some department of science or learning or the practice of an art founded upon it is used in the service of others. Its members are governed by codes of ethics and profess a commitment to competence, integrity and morality, altruism, and the promotion of the public good within their domain. These commitments form the basis of a social contract between a profession and society, which in return grants the profession a monopoly over the use of its knowledge base, the right to considerable autonomy in practice and the privilege of self-regulation. Professions and their members are accountable to those served and to society." (p. 74) is a valiant attempt, if over-broad, as Cruess' team create a definition of professions and then fit medicine into that, rather than attempting to define professionalism as it fits within the field of medicine.

Several writers stress the context-dependent nature of professionalism (Verkerk et al. 2007; van Mook et al. 2009a), including Hafferty, who sees professionalism as "something that resides in the interface between the possession of specialised knowledge and a commitment to use that knowledge for the betterment of others" (Hafferty 2008, p. 21).

Books

By nature of the publication process, material compiled in book form is not at the cutting edge. However, a thorough review of best evidence in medical professionalism would not be complete without mention of the several books that provide valuable material on which to build a curriculum.

Most of these books establish a working definition of professionalism to support the main focus of the book; teaching professionalism (Cruess et al. 2008; Eckenfels 2008; Egan 2006; Parsi and Sheehan 2006; Savett 2002; Spandorfer et al. 2009; Wear and Bickel 2008), assessing professionalism (Frank 2005; Stern 2006), or both (Thistlethwaite and Spencer 2008; Kasar and Clark 2000).   Others defined professionalism and then focused on one aspect of it, such as ethics (Faunce 2007; Kao 2001; Abrams 2006; Irvine 2003), or empathy (Halpern 2001). A few took a broad look at professionalism (Mills et al. 2005; Wimmer 2009; Wear and Bickel 2008; Irvine 2003). **Table 9** lists books published during the review time period.

Table 9 about here.

Previous systematic reviews

Veloski and colleagues performed a review of the literature (Veloski et al. 2005) with the purpose of ascertaining the utility of measurement tools for professionalism in medical students and residents. They came to a number of conclusions that informed to this review;

- Research in this field has grown in the current decade, indicating that much research is in progress and will be published.

- The instruments used in measuring professionalism may be used in other health care professional development settings, and so those bodies of work also should be searched to find the best instruments and their best use.

- The evidence base for content validity, reliability, and practicality as revealed through their review, was weak at that time (the review ended in 2002).

Van De Camp and colleagues observed that professionalism is "passively 'caught': students are expected to emulate the values and behaviours modelled by their teachers" (Van De Camp et al. 2004, p. 696). They attempted to arrive at a consensus definition of professionalism, first through a systematic review of the literature to identify quality papers addressing the meaning of professionalism or its constituent elements, and then by doing a qualitative analysis of thematic elements identified through it, with results vetted by an expert panel. (Van De Camp et al. 2004). They concluded that there was no consensus within the medical community on a definition of professionalism, and suggest that conceptualization of professionalism is dependent on context- primarily the context of medical practice/specialty from which the perspective of professionalism is seen. In subsequent work she refines her model into a model for professionalism in general practice (Van De Camp et al. 2006).

Martimianakis, Maniate, and Hodges (2009) reviewed the literature on the sociology of the professions, and from this literature reject the view that a definition consisting of a set of traits or behaviours is sufficient. They argue that professionalism is not a stable construct, but rather "socially constructed in interaction" (p. 835). They raise the provocative notion that professionalism, rather than an individual attribute, is a shared construct across a health care team or

organisation, a "distributed attribute" (p. 835). An adoption of this perspective would require a wholesale rethinking of how professionalism is taught and assessed, and also how unprofessional behaviour is addressed in organisational contexts.

Major theme issues of journals

The foremost journals and theme issues dedicated to the topic of professionalism are:

Academic Medicine, in 2002;77(6) and 2007;82(11); Medical Education in 2005;39(1);

Perspectives in Biology and Medicine 2008;51(4) and The American Journal of Bioethics

2004;4(2).

Of these, Wear and Kuczewski's, paper (2004), along with the 26 invited response pieces that accompany it, provide a particularly fresh philosophical frame for the professionalism debate. Wear and Kuczewski argue that the ongoing dialogue on professionalism had by that time become too abstract, ignoring the realities of the modern medical education environment, especially social factors, most especially gender. They present a series of recommendations that challenge educators to engage more with students in the development of professionalism curricular components, such that the structures of curricula themselves become more compassionate and respectful. Theirs is a view of professionalism as an overarching construct, more than a set of attributes, and a concept that needs to be lived by educators, not merely presented to students as a package of lore dissociated from practice: "we need to think about what happens once the abstractions are uttered, because there is no movement to filter them through the cultural practices of academic medicine—in particular the formal, informal, and hidden curriculum—as they are experienced by students, patients, and physicians" (p. 5).

Discussion

"Today, the term 'professionalism' springs like kudzu from every nook and cranny of medical education" Jack Coulehan (2005, p.892).

As light can be described as either a wave or a particle, so can professionalism be described as either an ethos or as a set of attributes to be mastered (van Mook et al. 2009b). Hafferty refers to these as "abstractedness versus specificity" (Hafferty 2004, p. 29). As an ethos, it can be attributed to personality (Verkerk et al. 2007) or character; to a large extent coming from personal integrity rather than being learned.

Viewed as a set of attributes or behaviours, it is easier to develop methods of teaching and assessing professionalism. The danger is that instead of a nuanced, practical tool, the result easily becomes "a set of 'hooray' words that no one would either disagree with or find informative" (Tallis et al. 2005, p. 8).

The focus on professionalism in medicine, and medical education, has developed in response to perceived threats to medicine. Most authors in our first tier group spend a deal of time on the evolution of the discourse on professionalism.

The occupation as it has traditionally fit in western culture was considered to be endangered (Blank 2002; Sox 2002) specifically by failures of self-regulation by the profession (Cruess 2006) or loss of autonomy and respect (Hilton and Slotnick 2005; Irvine 1999; Sox 2007; Swick 2007). Other threats included commercialisation of medicine (Blank 202; Cruess, 2006; Cruess 2004;

Rothman, 2000; Sox 2002; Sox 2007; Swick 2007; Woodruff et al. 2007) current students' moral compass not being as robust as that of students in past generations (Coulehan 2005; Erde 2008), higher modern standards of medical accountability (Cruess 2006), a better educated public more willing to second guess doctors (Cruess 2007; Irvine 1999; Irvine 2001; Woodruff et al. 2007), and the perceived evolution of medicine away from humanistic values towards the biological and technical aspects of practice, (Wear and Kuczewski 2004).

Collectively, these papers approach the definition of professionalism from historical, managerial, consensus building, and practical/pragmatic perspectives. Many authors find existing definitions lacking in focus or details. For example, Erde (2008) finds the ACGME definition too naïve and using too many items needing further definition. He thinks the concept should be "professionalism and ethics", signalling that professionalism needs a filter with it to keep it good or right".

Some argue that defining professionalism is not possible (Erde 2008; Swick 2000), or only possible with qualification (Jha), or hasn't been developed yet (Cruess 2004; Hafferty 2006) or isn't agreed upon (Van de Camp et al. 2004; Arnold 2002) or is vague (Erde 2008). While professionalism was expected, and had to be taught, it had to be defined (Cruess 2004; Erde 2008; Hafferty 2006; Van de camp et al. 2004; Woodruff et al. 2008).

Walsh and Abelson (2008) argue that the definition of professionalism should be linked to context. A problem with definitions based on list of attributes is that they miss the context dependent nature of the attributes "abstractions beg for a context, for particularity" (Wear 2004, p.3). Professionalism can be defined by type of practice/medical specialty (Van de Camp et al.2004; Woodruff et al. 2008), by setting (community vs. academic centre) (Swick 2007;

Hilton and Slotnick 2005),and stage of training (Brownell and Côté, 2001; Woodruff et al. 2008).

Rothman (2000) and Coulehan (2005) address institutional/organisational culture, as does

Coulehan (2005), who sees a "conflict between tacit and explicit values" that impacts

professionalism in hospital settings. Hafferty and Levinson (2008), as well, see it as a function

of relationships within systems, not just individual attributes or approaches (Hafferty 2008).

Verkerk (2007) notes that even honesty, a staple attribute of professionalism, may be a virtue

manifesting professionalism in certain cases, while subterfuge or prevarication may be a

professionalism virtue in others, as when a patient has a bad prognosis for which they are

psychologically unprepared. A professional is someone who can explain why in this case, for

this patient, the professional's behaviour or decision was appropriate (Verkerk 2007).

The concept also differs by the region in which the debate is evolving, particularly the UK vs. the

US. The focus of Professionalism in medicine (new professionalism in the UK) came about

largely because of the creeping threat of commercialism in the US (Coulehan, 2005) and

bureaucracy in the UK (Irvine, 1999). The British approach to professionalism is considered by

Hafferty (2006) to be more patient centred, while Irvine (2001) considers it too oriented

towards doctors. Both think that that the British approach pays too little attention to

humanism (Hafferty 2006; Irvine 2001).

Medicine is a calling, not just van occupation (Swick 2000), an identity, not just a set of skills

and knowledge (Wagner 2007), and so a definition of professionalism should perhaps be a

multi-dimensional concept (Van de camp et al. 2004) that evolves to meet the changing needs

of the medical profession's contract with society, a continuum that evolves with an individual's

growth through medical training and beyond (Woodruff et al. 2008). As medical practice has

diversified and become more complex, definitions have to be stretched or modified (Cruess 2006; Hafferty 2006). And so, for Cohen (2007), professionalism is a way of acting and behaving in accordance with certain normative values.

Some authors argue that professionalism should be narrative based as opposed to rule based, as rules and behaviours can't be assessed and morality is learned from role models, good and bad, more than formal training (Coulehan 2005). Verkerk et al. (2007) also consider it a personal, as opposed to a behavioural trait. It also varies with different patient settings and circumstances. Swick (2000) considers that "expert professionalism" has supplanted "social-trustee professionalism". Hafferty prefers succinct over inclusive, and argues that the Physicians'' charter is a statement of professional principles, but not a definition (Hafferty 2006). Coulehan (2005) writes of narrative professionalism, Van De Camp et al. (2004) of interpersonal professionalism as opposed to public professionalism and intrapersonal professionalism. Verkerk et al. write of reflective professionalism. They see professionalism as a personal or a behavioural characteristic, a second order competency that can only be judged in the context of other competencies (Verkerk et al., 2007).

Hafferty's (2006) preferred medical definition of professionalism would be based on core knowledge and skills, ethical principles, and a selfless devotion to service. He also acknowledges a sociological definition grounded in expert knowledge self-regulation and altruism that balances medical values with other societal values. Erde (2008) argues further that a definition should also set limits on what a doctor is expected to do for a patient. Wear and Kuczewski (2004), alone of these authors, wrestle with the issue of gender.

There is a commonly perceived notion within health care, but not well established yet in the literature, that the attributes of professionalism may differ by specialty and individual practitioner (Garfield et al. 2009; Rowley et al. 2000; Bryden et al. 2010; Pryor 2010). Kinghorn and colleagues add the observation that most formal statements on professionalism, as 'promulgated' by various professional bodies, reflect consensus within those bodies but do not reflect the community cultural and moral traditions within which medicine must operate (Kinghorn et al. 2007). Woodruff et al. (Woodruff et al. 2008) also present a compelling argument against definitions of professionalism that are tailored to different medical sub-specialties.

Seven years on from its publication, we find that the conclusion of Van De Camp's team, that "there is absolutely no consensus within the medical community about what constitutes professionalism" (Van De Camp et al. 2004, p. 700) still remains true. Van De Camp's team opt for the 'attributes' pathway to defining professionalism. They identified four such, altruism, accountability, respect, and integrity as being consensus favourites, noting that these attributes have been associated with the highest levels of excellent practice since Hippocrates.

As well, more recent papers have taken a more nuanced approach, focusing on a more complex, nuanced definition that is based on behaviours (Green et al., 2009) or on an ethos (Coulehan 2005; Jha et al. 2006; Swick 2007; Wagner et al. 2007) rather than a fixed set of attributes. These approaches more accurately portray the complex, contextual nature of desirable approaches to medicine, and behaviours are more readily measured, so aiding in assessment.

Strength and limitations of the present study

The potential always exists in reviewing such a broad ranging literature that important studies may have been missed. The literature also contains in-built biases of publication and reporting which skew the public discourse on newly emerging topic such as this in ways that cannot be adequately assessed.

The conceptual framework and research methodologies addressing professionalism are strongly informed by those of other disciplines, primarily education and sociology (Hafferty, 2006b, p. 193). A truly comprehensive review of definitional issues in professionalism would need to systematically explore also the tangled paths between those literatures and the medical literature.

Similarly, professionalism should operate across health care disciplines. Sadly, there is little interprofessional discourse across health care disciplines that should operate as teams (nursing, allied health). These disciplines have their own professionalism soul searching – parallel but disconnected. Surveying one discipline in isolation misses common content and underpinnings. Other limitations include the new and evolving nature of the data synthesis techniques that we have incorporated. Our very subjective approach to assessment of quality, in particular, has the potential to be reductionist, if not arbitrary (Barbour 2001). While the systematic advance planning of a systematic review ensures that the initial search strategy and inclusion criteria are objective, all synthesis strategies incorporate some element of subjectivity, and so are invariably interpretive in nature (Sandelowski 2008). Review such as this, combining qualitative and quantitative (and even opinion) are prone to criticism from the appearance of driving one agenda over others. We acknowledge the risk inherent in our quality assessment tool; that

such a checklist has the potential to be reductionist if not arbitrary (Barbour 2001), and to skew results towards aspects of execution or reporting of qualitative data, rather than a holistic judgement (Dixon-Woods et al. 2007).

This study will have relevance to those who are developing professionalism curricula and to those interested in the sociology and philosophy of medicine in the modern world.

Conclusion

"Explicit definitions are explicit heuristics: they guide or impel us in certain directions. By doing so they tend to divert our attention from information beyond the channels they cleave, and so choke off possibilities" Benson Saler (1993, p. 74).

After so much debate and publication, one could expect that the definition and important attributes of professionalism would be well codified by the end of the first decade of the 21st century, but there is ample evidence in the literature to suggest that the reverse is true (Bryden et al. 2010), and as yet no overarching conceptual context that is universally agreed upon (Archer et al. 2008; Walsh and Abelson, 2008).

Taken together, this literature reveals distinctions of subtlety and nuance, more than substance, surrounding definition of the key concepts of professionalism. Attempts to develop ways to teach and assess professionalism have likely been encumbered, and so failed to progress, because of the amorphous nature of these definitions. Hafferty observed that "professionalism is not a 'thing' that exists independent of social action and actors" (Hafferty, 2006a, p. 9109).

There have been many attempts at definition, and some that have gained more traction than others, particularly the American Board of Internal Medicine (ABIM) 'medical professionalism in the new millennium' pronouncement (Sox et al. 2002; Brennan et al. 2002b).

The semantics of professionalism obfuscate more than they clarify, and the continually shifting nature of the medical profession and in the organisational and social milieu in which it operates creates a dynamic situation where no definition has yet taken hold as the definitive one. This is the 'open systems predicament' referred to in the quote that opens this chapter at work. Efforts to define (or teach or assess) professionalism serve as additional drivers of change. While there have been many attempts at definition, none is standardised or has universal agreement. A definition is necessary to convey meaning- both to those within the profession, conferring a shared identity, and to those outside the field, particularly the lay public, to identify what the profession is dedicated to and what it values. A definition is also a fundamental basis for assessment of medical students, and for performance appraisal/evaluation in practitioners.

Declaration of interest

 The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

Contribution of Authors

HB designed the protocol for the review, reviewed all abstracts identified in initial searches and

all papers identified for possible inclusion in the abstract review stage, performed ancestry and progeny searches, compiled all numerical data contained in the tables and figures, and contributed to the writing of the final paper.

NG reviewed one third of abstracts retrieved in the initial search, reviewed half of all papers identified for possible inclusion by the review of abstracts, and wrote the final draft of this paper.

IW reviewed one third of abstracts retrieved in the initial search, reviewed half of all papers identified for possible inclusion by the review of abstracts, and contributed to the writing of the final paper.

MH developed the search strings, retrieved and managed abstracts and papers, and made editorial suggestions on the paper.

TU supervised the work in progress and made editorial suggestions on the paper.

DN reviewed one third of abstracts retrieved in the initial search and made editorial suggestions on the paper.

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