

A time for transformative leadership in academic health sciences

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Academic medicine, in its broadest sense, has made major contributions to human health in the past quarter century. This has been achieved in large part because it has attracted an outstanding cadre of - largely altruistic - professionals. These pioneering efforts have served as the life-blood of the discipline. Their journeys of discovery, often complemented by collaboration with the pharmaceutical, biotechnological and device industry have yielded remarkable insights into the diagnosis, treatment and prevention of disease and been celebrated by a stunning array of Nobel laureates in medicine and related arenas of endeavour.¹ The translation of discovery to the bedside, clinic and the community coupled, most recently, with insights into the gap between potential effectiveness and what ultimately occurs as part of health care delivery, have been monumental in scope. This progress has unquestionably been the province of the university based clinician scientist. Within Canada, the emergence of the Canadian Institutes of Health Research, the Canadian Foundation for Innovation, and the Canada Research Chairs has been pivotal in launching the careers of a new generation of clinician scientists. The excitement of discovery, gratification associated with direct patient care, and satisfaction of inspiring learning while engaging the next generation of emerging health professionals is rewarded by a career in academic medicine characterized by extraordinary challenge, fulfillment and meaning. As remarkable as these advances in quantity and quality of life have been (in large part attributable to health care research and its implemen-

tation) the promises of molecular medicine and abundant new technologies portend an exciting future whereby academic medicine can build upon its noble and traditional contributions to human health.

Academic Malaise

In spite of this glorious past there exists a burgeoning consensus within the health sector suggesting that academic medicine now suffers from severe malaise^{2,3}. Malaise may usefully be defined as *uneasiness of mind or spirit; the unhealth of an institution, organization, activity or situation*⁴. This view, held both nationally and more broadly, has assumed increasing momentum and prominence over the past decade. Multiple opinion pieces and studies have been undertaken including an international campaign aimed at revitalizing academic medicine (ICRAM) sponsored in part by the British Medical Journal and the Lancet.^{5,6} This campaign is intended to enhance the future of academic medicine through the development of a vision, set of values and a strategy that would enhance its attractiveness and positioning to both stakeholders and future academic physicians. As implied by the title of this article, the author's belief is that an imperative exists for the development of transformative leadership in academic medicine within Canada and beyond. The views expressed here are highly individual and have been understandably influenced by four decades of personal experiences. These experiences have been derived from extensive dialogue with numerous friends and colleagues as well as mentors,

students, and a variety of present and past leadership/administrative portfolios. My intent herein is four-fold; 1) initially articulate key definitions that will set the stage for future discussion 2) Undertake an environmental scan as to how and why malaise in academic medicine may have developed, 3) Explore the source from which future academic medical leaders will emerge, and 4) Provide constructive suggestions to alleviate academic malaise.

One central reason for questioning the ability of academic medicine's relevance to contemporary health issues arises from its very definition. Academic may be defined as "*of or belonging to a scholarly organization, conforming too rigidly to the principles of an academy; excessively formal: not leading to a decision, i.e. impractical, theoretical, formal or conventional*", or most damning of all "*having no practical purpose or use*".⁴ These word pictures of academic medicine provide a ready target for those questioning its value. On the other hand they seem starkly anomalous to those of us clinician scientists and educators, who teach the next generation of health professionals, conduct research into fundamental and applied problems germane to the health of the public while at the same time caring for patients. Notwithstanding this, few working in health care today question the need for meaningful change in both the structure and functionality of academic medicine.

It has been argued that a central factor contributing to academic malaise is a yawning development gap in medical leadership accompanied by commensurate difficulty in attracting high quality, expertly trained, and well intended scholarly leaders to key leadership positions.⁷ As eloquently stated by James MacGregor Burns, "Leadership over other human beings is exercised when persons with certain motives and purposes mobilize, in competition or conflict with others, institutional, political, and psychological and other resources so as to arouse, engage, and satisfy the motives of the followers".⁸ Those leaders that are transformative appear able to incite positive activity and empower others thereby motivating them to accomplish extraordinary results.⁸ The collective action emerging from attitudinal change inculcates a mission orientated culture, sense of excitement and organiza-

tional commitment that stimulates others to step forward as potential new leaders. Medical schools have tended to be characterized by traditional and firmly established values, emphasizing autonomy of the individual and rewards for solitary achievement, as opposed to fostering group/team dynamics amidst a collaborative culture. These traditional values have lagged behind the dramatic changes in the collaborative, team orientated, contemporary dynamic that is currently operative in the health care environment.

In the 1970s, these traditional values were well suited for the health care culture of that era. Medical schools were then well positioned as obvious sources of health care, knowledge and authority were usually juxtaposed to large teaching hospitals that were silo-like in character. Academic medicine unquestionably occupied centre stage, providing advanced tertiary health care, largely monopolizing the conduct of clinical research and regenerating itself with students who were developed in a traditional mold. Global communication, let alone that between institutions, was by today's standards limited, thereby helping to preserve this status quo.

Consequences of Shifting from the Traditional Model

Many factors converged to drive the need for change in this traditional model. Most importantly was the major attention directed towards spiralling health care costs within a universal single payer system and the attendant emphasis on reducing them. This focus led in turn to an appreciation of the variability in medical practices and hospital standards of care. The revelation that there were substantial disparities in clinical outcomes associated with this practice variability was profoundly influential in stimulating a change in the manner in which health care was delivered. At the same time the focus on reduced cost led to extraordinary pressure to enhance efficiency, provide more rapid clinical throughput: academic medicine was unaccustomed to this major focus on speed and efficiency. Predictably with this change came an increase in administrative oversight with a major emphasis on quality assurance, accountability, and the requirement

for greater transparency. The quest for greater accountability was further hastened by the extraordinary report on medical errors provided by the Institute of Medicine.⁹ Consensus guidelines for common conditions began to be developed by professional organizations, and care paths for chronic conditions such as myocardial infarction, pneumonia, and hip surgery emerged. These carried with them an increase in administrative burdens, often unaccompanied by a commensurate increase in infrastructure support and the necessary information technology required to fulfil these new responsibilities thereby usurping valuable time available for individual patient care.¹⁰ In summary, caring for patients became less rewarding, more burdensome and a lot more complicated.

This constellation of concerns around costs, quality, and accountability within the complex environment of health care, galvanized new systems within health care facilities that consolidated resources more broadly than before within a centralized authority. Especially notable along with these changes was the use of the word authority which became juxtaposed with the health regions nomenclature. By necessity, these large regional systems had complex administrative structures that proved far more cumbersome to negotiate than the previous single-institution model that was smaller, more personal and nimble. In this new regional health environment, reorganization of patient care around programmatic lines logically emerged as a common characteristic. By definition, this model cut across conventional academic department lines thereby complicating their functionality.¹¹ A new discontinuity between function and structure emerged as traditional clinical responsibilities no longer naturally flowed to clinical department heads. This mal-alignment was challenging and ultimately problematic for many.

These challenges were further exacerbated by service imperatives that facilitated the movement of traditional and specialized resources from academic health centres to the community. Because of the financial attractiveness of specialized community posts this development was often accompanied by the flight of valuable academic personnel. The rapid rise in service demands in a world that was increasingly a 24 hour/7

day a week operation eroded previously treasured and protected time for teaching and research. Fragmentation of care amongst sub specialities in an environment where hospital beds were reduced further contributed to physician dissatisfaction and an increased gulf between academic and private practitioners (many of the latter had been responsible for clinical teaching). When the concern for the costs of medical care became translated into acceptance of the Barer Stoddart report with an attendant reduction in medical student enrolment there was enormous dissatisfaction amongst many in academic leadership positions.¹²

Outside the health care environment in this contemporary era the world was also transforming with the advent of high speed computing, the scientific and other benefits of the internet, discoveries emerging from biotechnology and bioinformatics, and exciting new opportunities from nanotechnology, genome sequencing and molecular medicine. New discoveries from modern medicine which emerged provided impressive enhancement of both the quality and quantity of life. Somewhat paradoxically, the diagnostic and treatment options associated with these discoveries made medicine even more complex and costly, thereby potentially increasing the demand for expensive medical services.

These developments signalled a clear need to move beyond the conventional reductionistic approach to a more holistic full system motif incorporating a dynamic interaction between many interdependent variables, i.e. interdisciplinary care and research.^{6,11} Thus, traditional academic medical leaders were confronted with a world where a collaborative corporate culture prevailed, information was broadly and rapidly available, major devolution of previously centralized resources (and professional staff) to the community occurred and the specialized knowledge, once the province of academia, was now more broadly available.

Why are there an unprecedented number of academic positions unfilled and difficulty in recruiting and maintaining the highest quality physicians to engage the health care system at this level?^{2,7} From both a public and peer perspective, leadership positions in academic medicine seem far less attractive than they

once were. The diffuseness of health care management and operations is increasingly complex: the capacity to convert apparently straightforward decisions into action appears mitigated by cumbersome bureaucracy and the lack of alignment between responsibility and authority is especially frustrating. The preoccupation with efficiency emerging from the commonly employed business model tended to dehumanize traditional patient care. A sense of disenfranchisement within the profession led to a demeaning of traditional values as medicine evolved into a commodity to be consumed by customers rather than a noble and honourable profession characterized by a highly personal special relationship between patient and physician.¹⁰

Future Leaders

Pari-passu with these changes has been a transformation in potential leaders emerging from the profession. The increasing cost of medical education and post graduate training has led to substantial and unprecedented indebtedness amongst graduates of medical school and postgraduates programs. Understandably, a desire to address these economic issues in a timely fashion exists and so too do there become reservations about undertaking the further training required for academic positions. Why defer income to ultimately accept a less remunerative academic post when a private practice alternative exists? Many of the newer generation of physicians also wish to achieve more appropriate balance between their personal versus professional lives: this aspiration is not seen as a characteristic consistent with a career in academic medicine. The emergence of a predominantly female proportion of medical graduates has been enthusiastically greeted by many. However their understandable attention to family life and non medical issues coupled with their under representation in academic leadership positions is a looming and urgent issue that has yet to be adequately addressed.¹³

Some of these physician concerns amidst the contemporary environment have been well addressed by Souba as depicted in Table 1. These highlight sources

TABLE 1. Factors Contributing to Dissatisfaction and Frustration

Unpleasant Environment	Missing Sense of Purpose
Overworked and underpaid	Less trust and confidence in leadership
High turnover (poor staff retention)	Reduced meaning and direction
Reduced appreciation and respect	Lack of commitment to a cause beyond oneself
Diminished collegiality and teamwork	Perceived inability to make a difference or contribution
Increased administrative burden/but lack of information without tools and resources	Reduced reward/enjoyment
Limited time for research and teaching	Impediments to embedding values in work
Less opportunity for professional development	Disenfranchisement of decision making

Adapted from Souba WW. Academic Medicine and the Search for Meaning and Purpose. *Academic Medicine* 2002;77:139-144 with permission from the Association of American Medical Colleges

of dissatisfaction and frustration in the academic workplace.¹⁰

It is indisputable that the role models to which training physicians are exposed have a profound influence on their career aspirations and destination. Regrettably, the single, but widely recognized negative role model can undo the positive elements emerging from several engaged, productive and inspirational academic role models. The organization of training residents into professional associations with a union-like culture has had a positive impact on a number of issues associated with residency training. Unfortunately however this movement has also created tension across the interface between trainees and faculty/mentors that represents a classic culture clash relating to hours worked, continuity versus fragmentation of care, and the ultimate responsibility for assumption of patient care.

A Path Forward

Having painted this rather bleak portrait of the current state of academic medicine what positive steps could be undertaken to improve the current situation? Are there constructive opportunities which exist to address it? The answer is most assuredly yes and there are, unquestionably, several possibilities to consider. Clearly, the sources of physician disenchantment need to be addressed by all stakeholders since, without their full and active engagement, the desired emergence of a new talented generation of academic leaders is unlikely to occur. There is a desperate need to restore the fundamental and timeless values of the medical profession associated with health care delivery. In this model patients should not be perceived as clients but as human beings with issues and concerns that need to be addressed in a more comprehensive fashion.^{6,7,10,11} Fragmentation of care and preoccupation with technological advances have led to the notion that health care can be treated as a commodity rather than a fundamental human right. Academic medicine needs to use its moral authority and expertise to help re-engineer the health care process by exhibiting leadership. Recasting the health care delivery system into novel teams with shared leadership that is derived from the necessary expertise working in collaboration could well provide a source of satisfaction to both those receiving and delivering enlightened healthcare. The need to be globally minded and to address fundamental issues such as the challenges of chronic disease amongst the aging population, the psychosocial and socio-economic elements of health which cannot be solved by politicians or health administrators, are genuine opportunities for new research and visionary leadership. Barriers to the academic advancement of women deserve special attention and the recruitment of women into scientific careers using lessons such as those developed by Armour in the WISEST (Women in Scholarship, Engineering, Science & Technology) program at the University of Alberta is but one example of how this can be successful.¹²⁻¹⁴ The responsibility to recruit and retain those whose values and aims are aligned with a transformed academic leadership culture are shared by universities,

leading health care institutions and professional organizations alike. They must assist in creating an environment and set of experiences that facilitate the emergence of talented young leaders who are inspired, committed and creative.

Having identified such individuals there must be facilitation for them to acquire the necessary cognitive and behavioural skills associated with the development and implementation of a strategic vision. One proposition worth considering is the creation of a national school for academic medical leaders which would focus on an understanding of key tenets including the necessary refinement of the skill set for personal and professional growth. Complementing this would be effective institutional mentoring from senior faculty such as former chairs and deans who could provide appropriate coaching and feedback in real world situations. The identification of future leaders for specialized training would become a faculty priority with a formalized process such as exists in government and business sectors. Each health science centre would be expected to identify prospective leaders using common and agreed upon criteria understanding that a successful outcome would lead to a more successful and orderly academic leadership transition. An exchange program consisting of a two to four week block whereby coaching and shadowing key leaders from participating in institutions outside one's own would provide unique, on the job insights and practical on the job training concerning what it takes to succeed.

The complexity, costs and human elements of our health care system urgently deserve enlightened, inspired and transformative academic leadership. The current malaise which has infiltrated academic medicine needs to be treated so that a robust return to health in a new era emerges. Physicians who occupy a position of privilege need to be awakened to this fundamental element of their social contract which is to provide a return on society's investment in them. The time for action is now.

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