ORIGINAL RESEARCH

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The Need for an Executive Leadership Curriculum in Scientist-Clinician Training Programs

Abstract

The health of Canadians depends on effective leadership among health care providers to facilitate the translation of new health discoveries into clinical practice. Clinician-scientists play an important role in bridging the gap between research and clinical practice, and require effective leadership skills to advance clinical practice successfully. To accelerate the leadership development in clinician scientist trainees, with the aim of developing strong leaders in administration and health advocacy, the Leaders in Medicine (LIM) training program at the University of Calgary created an Executive Leadership Coaching Program involving three phases: 1) an evidence-based evaluation tool, the Core Values Index™ (CVI), that was used to identify the key drivers behind how individuals can be most effective in making their contribution; 2) small group workshops to debrief the results of the CVI assessment; and 3) one-on-one executive coaching sessions to facilitate the discovery, development and deployment of individual leadership capabilities. Coaching in leadership strategies enables clinician-scientist trainees to lead, influence, manage and deliver science-based improvements into the practice of medicine. We strongly recommend that other Canadian scientist-clinician training programs consider opportunities like the ones we offer to our LIM trainees. This training has important implications for the delivery of healthcare in Canada.

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Leadership competency

Given the unique ability to understand research and clinical medicine, clinician-scientists play an important role in innovation and leadership in Canadian healthcare. Unfortunately, dedicated training focused on skills to lead, influence, manage, communicate and delegate tasks is not a standard part of the clinician-scientist training, potentially impacting a trainee's potential as a future leader in health care.

Leadership development programs for senior health care leaders are well established within academic medical centres; however, the same dedicated mentorship opportunities for trainees are often lacking in medical school or residency training programs [1-4]. In fact, few medical schools and graduate medical education programs have a dedicated leadership curriculum in North America [5]. Greater attention is needed to cultivate physician leaders [6], especially earlier in their career.

Core competency domains in clinical medicine and leadership include technical skills and knowledge, industry knowledge, problem-solving skills, emotional intelligence, communication and a commitment to life-long learning [6]. Although two of these six skills are enabled by the University of Calgary Leaders in Medicine (LIM) curriculum (problem solving and communication), the other four areas are not explicitly addressed; therefore, the acquisition of these skills and knowledge is left to chance. This lack of training in leadership, specifically in addressing the core leadership competencies (technical skills and knowledge, industry knowledge, emotional intelligence and life-long learning), not only limits innovations in direct patient care, but also affects the clinician-scientist's ability to contribute effectively in administrative and health advocacy type leadership positions.

Fortunately, there are numerous approaches to develop leadership competency: interactive lectures; group discussions; role-play; workshops; case-studies; and one-on-one sessions. Recent research suggests that one-on-one leadership coaching improves leadership capability, including improved delegation and fostering resilience and goal attainment among leaders [7]. By targeting opportunities for leadership coaching and leveraging high-impact experiences in trainees, targeted training has the potential to enhance student leadership development within the health care system [8].

Leaders in Medicine Executive Leadership Coaching Program

To address this gap in leadership training, the LIM program, in collaboration with Mr. Gord Aker, an International Coach Federation, Professional Certified Coach™, whose coaching practice specializes in working with young professionals, developed and piloted the LIM Executive Leadership Coaching Program. The Executive Leadership Coaching Program was piloted with select LIM clinician-scientist trainees.

The LIM program at the University of Calgary is one of the largest clinician training programs in Canada, and represents a group of trainees who have embarked upon a dual program of medical and graduate training (MD/PhD, MD/MSc, MD/MBA or MD/MA). The LIM program's objective is to educate clinician scientists to become 'medical leaders of the future' and provide training that will prepare them for clinical, administrative, industry or political leadership. The program was created to provide an effective means for LIM trainees to discover, develop and deploy their unique leadership capabilities.

Phase One: Core Values Index™

Individual interests were assessed in leadership development opportunities by an evidence-based assessment tool called the Core Values Index (CVI). The CVI is an assessment tool that uses strategic and tactical values in a forced choice format that provides a description of the innate, unchanging nature of an individual. Students received a report identifying their unique motivational drivers, core strengths and strategies to improve effectiveness.

Phase Two: small group workshops

A workshop was offered to debrief the results of the CVI. This workshop allowed for discussion around individual core motivational drivers, individual challenges to effectiveness and key strategies to improve personal effectiveness.

Phase Three: one-on-one executive leadership coaching

Six one-on-one executive coaching sessions (1–1.5 hours per session) with Mr. Aker were conducted to learn more about and develop their unique leadership styles, capabilities and potential. This was an opportunity for LIM students to experience the impact of professional coaching with its emphasis on personal exploration, discovery or insight and

commitment to action, based on their unique situation, needs and leadership potential.

Leaders in Medicine Program Survey from 2016-2017 Pilot Project

Seven students completed Phase One and Two. From there, four students were invited to participate in Phase Three. These trainees were selected based on their participation on the LIM Executive. Overall, participants agreed that the CVI assessment was useful at identifying personal leadership qualities (mean=4.4±0.5/5), that the group sessions were useful to interpret and integrate the information from the CVI

(4.25±0.5/5), and those who participated in the one-on-one sessions found them beneficial for improving leadership skills (5±0/5; Table 1). Participant responses also suggest that more time is required/desired for leadership training and that finding time to complete the training was a challenge. Additional participant feedback was collected to help with further program improvement (Table 1).

TABLE 1. Leaders in Medicine Executive Leadership Coaching Program Survey from the 2016–2017 Pilot Project

STATEMENT	AVERAGE (/5)
PHASE ONE	
I was able to set time aside to complete the CVI.	4
The CVI was helpful in identifying my leadership style.	4.4
The CVI report was easy to understand and applicable to how I approach leadership responsibilities and/or opportunities.	4.4
PHASE TWO	
The group seminar discussing the CVI with Mr. Aker helped to clarify my leadership style.	4.25
I enjoyed having this seminar in a group format.	4.25
The group seminar was an appropriate duration (one hour).	3.75
PHASE THREE	
The one-on-one executive coaching sessions with Mr. Aker were helpful in improving my leadership style.	5
I was able to find time for all six coaching sessions.	3.67
The six coaching sessions were enough to establish new leadership confidence and skills.	5
OVERALL PROGRAM FEEDBACK	
This program has helped me to better understand my leadership style.	4.2
This program has helped me to better apply my strengths in leadership settings.	4
This program has helped me to better manage leadership roles during my graduate and/or medical school training.	4
The awareness I have gained through this program regarding my leadership style will be helpful as a future clinician-scientist.	4.2
I would be interested in additional group leadership sessions.	4.2
I would be interested in additional one-on-one coaching sessions.	4.8
Overall, I am satisfied with the LIM Executive Leadership Coaching Program to date.	4.4

1-strongly disagree; 2-disagree; 3-neutral; 4-agree; 5-strongly agree

Abbreviations: CVI, Core Values Index

The need for leadership curriculum

Clinician-scientists play a key role in the discovery and development of innovations in medical care, and the application of those advances into everyday clinical practice. For that role, it is essential that clinician scientist trainees be equipped with the skills and abilities necessary to lead and influence effectively. The LIM Executive Leadership Coaching pilot program underpins the potential benefit of dealing with this issue within a dual degree medical curriculum aimed at training the next generation of innovators in medical care. Despite the small numbers in our pilot program, there was a very high degree of agreement amongst the participants about the utility of the process and potential benefit of further training.

Overall, the participant feedback suggests early success of the pilot LIM Executive Leadership Coaching Pilot Program. As the program is formally adopted and scaled up, further evaluation of program performance will be required. We believe that formalizing leadership training will lead to a greater proportion of LIM trainees in leadership roles and improved confidence and satisfaction in these roles. The trainees' reported desire for the program and request for more time for leadership training highlights both the need for formal and explicit training in leadership, and a tremendous opportunity to enrich training experiences and optimize professional outcomes. A few prominent healthcare organizations in the USA currently offer leadership programs [9] but we are not aware of such opportunities in Canada. Based on our experience, we strongly recommend that other Canadian scientist-clinician training programs consider opportunities like the ones we offer to our LIM trainees.

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