LEADS+ Developmental Model: Proposing a new model based on an integrative conceptual review

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Abstract

Purpose: Leaders in academic health sciences centres (AHCs) must navigate multiple roles as an inherent component of their positions. Changing accountabilities, varying expectations, differing leadership competencies required of multiple leadership roles can be exacerbated by health system disruption, such as during the COVID-19 pandemic. We need improved models that support leaders in navigating, so they can better handle the complexity of multiple leadership roles.

Method: This integrative conceptual review sought to examine leadership and followership constructs and how they intersect with current leadership practices in AHCs. The goal was to develop a refined model of health care leadership development. The authors used iterative cycles of divergent and convergent thinking to explore and synthesize various literature and existing leadership frameworks. The authors used simulated personas and stories to test the model and, finally, the approach sought feedback from knowledge users (including health care leaders, medical educators, and leadership developers) to offer refinements.

Results: After five rounds of discussion and reformulation, the authors arrived at a refined model: the *LEADS+ Developmental Model*. The model describes four nested stages, organizing progressive capabilities, as an individual toggles between followership and leadership. During the consultation stage, feedback from 29 out of 65 recruited knowledge users (44.6% response rate) was acquired. More than a quarter of respondents served as a senior leader in a health care network or national society (27.5%, n=8). Consulted knowledge users were invited to indicate their endorsement for the refined model using a 10-point scale (10=highest level of endorsement). There was a high level of endorsement: 7.93 (SD 1.7) out of 10.

Conclusion: The *LEADS+ Developmental Model* may help foster development of academic health centre leaders. In addition to clarifying the synergistic dynamic between leadership and followership, this model describes the paradigms adopted by leaders within health systems throughout their development journey.

NOTE ABOUT AUTHORSHIP: Please note that Sandra Ramelli & Sarrah Lal are co-first authors for this paper.

Introduction

Health systems in the 21st century face increasing complexity. Technological advances, changing patient demographics and expectations, fiscal pressures, accelerated information flow, and health human resource challenges, among others, are exacerbating the complexity.[1] The pandemic has added a layer of interconnectedness that leaders in health care have not seen before. Concomitantly, the pandemic has created 'wicked problems'[2], challenges of such intricacy and breadth that current leadership practice is unprepared for, and therefore has exposed leadership gaps in academic health centres. We need models to support emerging and practicing leaders in navigating multiple professional identities often required to deal with such issues. New leaders must better understand the emerging complexities of their jobs across both academia and health care. This will help healthcare leaders navigate competing priorities, understand the nuances of inter-personal dynamics and organizational politics, also climb the ranks in both academic and health care settings.

This paper explores the nuanced roles and career paths of health systems leaders within academic health centres (AHCs, clinical units that are affiliated with academic institutions/universities). In matrix organizations,[3] such as AHCs, there are at least two entities at play: a hospital and a university. Matrix organizations are interdependent organizations with separate cultures and systems that are connected by individuals who cross between groups, seeking to enact common outcomes across an organization. Based on its strategic and operational realities, each entity within an AHC has unique goals, values, and priorities. Each enterprise also presents different challenges and knowledge users. The interconnectedness of hospital systems and academic institutions within AHCs results in individuals holding multiple roles and, across these, multiple identities. Leaders working within each entity are often left to navigate competing needs, goals, values and perspectives.[4] Wicked problems – demanding a multiplicity of organizational interests and perspectives – confuse identities further. This is exemplified in different exhibited behaviors, leadership, and management styles, trade-offs, and ways of thinking based on context.

As individuals advance in their career, they are often challenged to develop both personally and professionally. The capacity to do so is variable between individuals. Leadership roles may include professional identities as a clinician, administrator, researcher, educator, opinion leader, among many other professional (and personal) identities. Regardless of their professional identity, we argue that each person must engage in both leadership and followership (i.e. a phenomenon in which individuals support the leader through assuming responsibility for given objectives, serving the requests made of them, challenging/debating the leader when appropriate, participating in organizational transformation, and taking moral action as needed[5,6]) with increasing nuance as they advance their roles.

The *LEADS in a Caring Environment framework* (LEADS framework) was developed in 2006 to articulate and promote core leadership capabilities in health care.[7,8] Today, the LEADS framework (or adapted versions) is one of the most popular leadership frameworks for health systems in Canada[9,10] with adoption in Australia[11], Belgium[12], India[13], Israel[8,14] and has strongly influenced the United Kingdom's Faculty of Medical Leadership and Management's certification standards. Leaders who inhabit multiple roles may grapple with how to apply the LEADS capabilities across their multiple roles of varying seniority. For example, while - case in point, the "L" in the LEADS framework refers to *Leading Self* (implying a singular identity), this poses a challenge when multiple identities have to be managed and integrated into one's notion of self. However, it does not explicitly guide leaders navigating multiple roles within integrated systems, where seniority and complexity vary. Indeed, an individual may have an executive role in hospital administration, serve as a clinical supervisor, and be a mid-career faculty member in an academic department; and the same wicked problem around hospital staff wellness may be seen differently from each role's vantage point. The LEADS framework can help an individual to employ their leadership within a defined system. Without adaptation, it is unlikely that the current *LEADS framework*, nor any other health care leadership framework, will explicitly address the context of an AHC leader who has multiple roles and, more broadly, the fluidity that must exist between leadership and followership.

Considering the strengths of the LEADS framework and the need to explore new ways to encapsulate the multiple roles of leader-follower, we set forth to build upon this prior work. Our new framework (the *LEADS+ Developmental Model*) articulates leadership and followership practice when serving in multiple leadership roles of varying seniority.[15,16] Four styles of engagement within an AHC are described: two followership styles (essential, strategic) and two leadership styles (role- and complexity-based). We propose that advanced leadership requires fluid shifts for the *Leading Self* domain of LEADS, as leaders must reconceptualize themselves from a leadership/followership perspective as appropriate for given roles, organizations, and context.

Methods

An integrative conceptual review[17] was conducted to explore how a leader's development interfaces with a leading health care leadership framework, the *LEADS in a Caring Environment* framework. Similar to the

process used by Gottlieb and colleagues, sequential iterative cycles of divergent and convergent thinking were employed, exploring various vantage points and theories within the literature.[18] Ultimately, the perspectives of the authors coalesced into a singular conceptual framework. Figure 1 depicts our workflow.

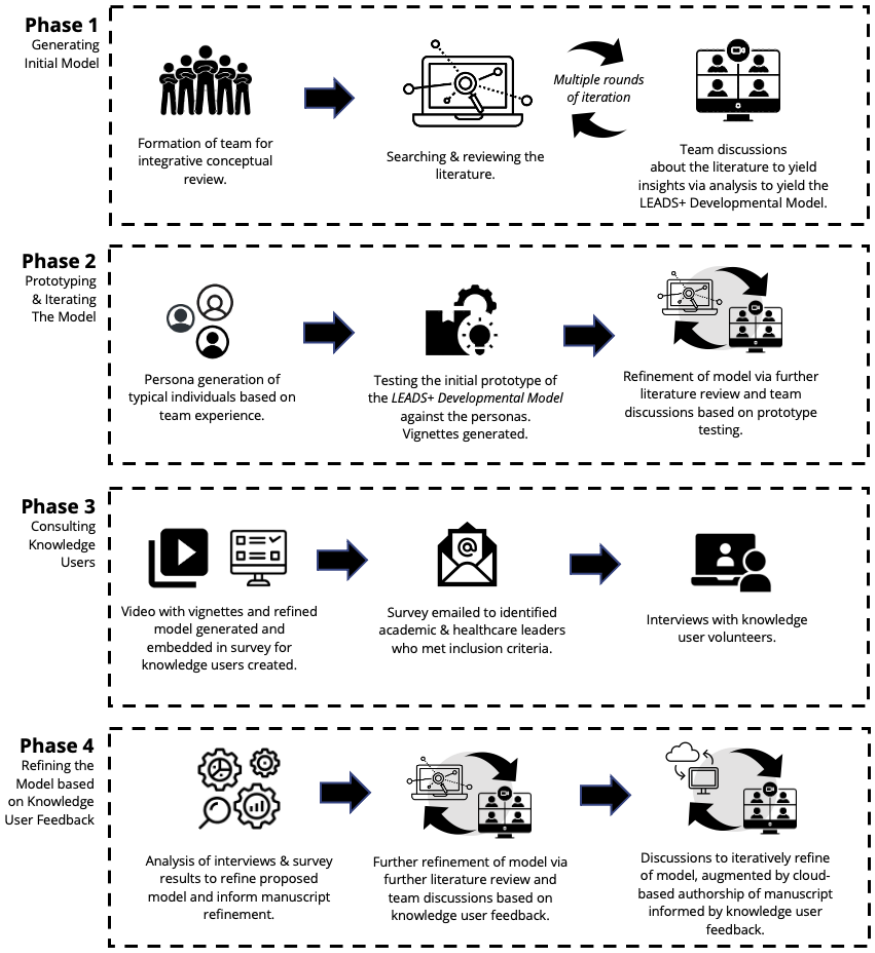

Figure 1: Workflow for our present integrative conceptual review

The Team

Our study team was composed of two clinician-educators with leadership roles (JS, TMC, both with decanal positions in education leadership), one health care administrative leader who also holds a faculty appointment (SR), one leadership and health entrepreneurship educator who also holds leadership roles within an incubator and several start-ups (SL), and a PhD professor of leadership studies, who is one of the originators of the *LEADS* framework and the head of a non-profit organization (GD).[7,8] Throughout the process we empowered members of the team to challenge each other's personal assumptions and interrogated our selections of theories to ensure that we remained reflexive about the literature reviewed.

Discussions Within the Analysis Team

First, we conducted a pilot review of various leadership frameworks and theories (this was done by SR, SL, TMC). This step formed the basis of initial discussions. The most salient framework was felt to be the *LEADS* framework because of its prominence in Canadian healthcare.[7,8] Kegan's model of human development[19] was selected to augment the LEADS framework because it seemed to provide the developmental framing that we felt was absent from the LEADS framework. These two frameworks continued to inform our discussions, similar to how sensitizing concepts are incorporated in other qualitative methods.[20] Situational leadership [21] and the Cynefin[22] frameworks inspired thinking about the adaptive nature of leadership and the advanced proficiencies required to discern among appropriate styles for a given context.

Box 1: What is the *LEADS in a Caring Environment* framework? The LEADS in a Caring Environment Capa

Box 2: Kegan's Human Development Model (including the Orders of Consciousness) The Kegan Human Deve

We engaged in multiple rounds of discussions via videoconferencing with memo-generation and collaborative conceptual development using cloud-based, real-time interactive documents. Each session lasted approximately one-hour.

Literature Review & Synthesis

After refining our initial model, we conducted a focused literature review. We drew from literature within health systems leadership, followership and organizational development, contrasting our own newly formulated conceptualization with other existing models. We engaged in iterative rounds of revisions. Ultimately, we crystalized our thinking into one conceptual model (see results section), which we refined through persona-driven testing (i.e. cognitive simulations with various types of simulated characters that used to elucidate each role in various scenarios) and knowledge user consultation.[23,24] We then developed personas that were based on exemplars from our collective experiences test and prototype our model.[23–25] The vignettes are found in the online supplemental appendix.

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Knowledge user consultations

Similar to knowledge user consultations endorsed by scoping reviews[26] and the *Canadian Institutes of Health Research* Knowledge Exchange process[27] and based on a prior published process , we sought formative feedback on our provisional concepts from a range of educators, experts, and frontline practitioners from across North America via a snowball sampling technique, starting with nominations from experienced leadership developers within our team (GD, TC, JS). Our newly proposed model along with associated persona-driven vignettes were submitted to a representative sampling of health system knowledge users (clinicians, administrators, educators and researchers in health care leadership) for review.

Our inclusion criteria were that the individual would meet one of the following criteria:

1) Personal experience in blended leadership roles across two or more organizations/units;

2) Supervised/lead others who bridge across more than one role; or

3) Actively engaged in teaching or scholarship about leadership training and development.

We excluded those who met the above criteria but had no experience within the North American health care context. We constructed a simple survey tool with an embedded video (https://bit.ly/BridgeLEADsurvey) and requested that each knowledge user help us to identify the strengths, weaknesses, and relevance of the conceptual model to their own leadership-related practice. The quantitative aspects of the survey were analyzed using simple descriptive statistics. The qualitative aspects initially underwent a thematic analysis[28] by the senior author (TMC) and was subsequently checked by the first authors (SR, SL). We subsequently met with each of the leaders for a one-on-one interview led by our senior author (TMC) to gather feedback from those who volunteered to engage with us to provide further feedback. A thirty-minute, one-on-one Zoom interview (Zoom communications, Inc., San Jose, CA) was completed within a one-month span with any knowledge user who sought to provide verbal feedback about our model in addition to their survey responses. Feedback was incorporated into the body of the paper throughout the writing process.

Results

The *LEADS+ Developmental Model* articulates the acquisition of leadership capabilities, providing tangible milestones for healthcare professionals embarking on their leadership journeys.

Contrasting to Prior Leadership Frameworks and Models

In our review of the prior literature (both from within and outside of health care), we noted that there was a paucity of frameworks that mapped the developmental journey of leaders. There were many papers that told the story of individual leaders'[29–32], how senior individuals might mentor junior leaders[33], or health care systems' developmental pathways journeys throughout a career.[34–36] However, most of these frameworks do not explicitly articulate the asymmetric growth of a leader across multiple roles nor stratify their progression via acquisition of more complex leadership capabilities (e.g., within themselves, in relation to small teams, with regards to other organisations and groups, and finally in achieving systems changes or results). For instance, Heifetz's adaptive leadership approach suggests that a given leader should change and adapt to their context[37], but assumes that a leader is at a specific stage within variable contexts and does not provide the insight about how a leader's roles change over time.

Meanwhile, the meta-leadership framework (developed by McNulty, Marcus and their other colleagues from Harvard)[38–40] speaks to the need for leaders who can bridge multiple worlds and work together, especially in times of crisis. The meta-leadership framework was first developed from studying various emergency situations (e.g., Boston Marathon Bombing) and is highly resonant with our complexity-based leadership phenotype. However, meta-leadership does not speak to the versatility of an individual to switch between various types of engagement or leadership and followership in varying contexts, nor does it compare meta-leadership with other stages of development that a leader might encounter on their professional development journey.

Numerous other leadership frameworks have multiple levels (e.g. Collins' Good to Great five leaders levels[41]) or loosely describe various stages a leader may experience though their lives (e.g. Joiner & Joseph's Leadership Agility[42]), but few models tend to pull together the various aspects of development into a model that expects a health care leader to variably manifest capabilities in different contexts.

Selecting the Frameworks for Integration

The LEADS framework is well known across the Canadian health care landscape and is used as the basis for numerous leadership development programs; it has more specificity than the Leader Role identified in the 2015 CanMEDS Physician Competency Framework.[43,44] After review of existing models, we felt that although the *LEADS* framework mapped the capabilities of health care leaders, it was not clearly adaptable to situation in which a leader has multiple organizational roles. The *LEADS* framework does not explicitly account for the context nor experience of an AHC leader who has multiple synchronous roles of mixed-seniority. Similar to other outcome-frameworks in health care, the *LEADS* framework describes the capabilities of the ideal leader. Complimentary to the *LEADS* framework, Kegan's adult development model focuses on an individual's cognitive development without any specific attention leadership capabilities. Prior work by Kegan and colleagues has described various ways in which individuals develop and assume various orders of consciousness, engage in constructive-development (despite an innate resistance to change), and create cultures that support all members of an organization.[19,45,46] As such, we felt that a "remix" of these two frameworks might be most informative for AHC leaders.

Synthesis of Selected Frameworks: *LEADS* meets Kegan

The *LEADS+ Developmental Model* highlights stages of leadership in matrix organizations and promotes self-reflection to help leaders manage multiple leadership identities. See Table 1. The Supplemental Digital Content (Appendix 1) provides worked examples for each of the phenotypes within this model. The model may support teams in understanding roles played by their leaders in various contexts. Talent & leadership developers, such as educators in university-affiliated faculty development teams or hospital-related organizational development units, seeking to add more theoretical underpinnings to their courses or programs can use it to scaffold their curricular design. Coaches and mentors seeking to provide one-on-one support for AHC leaders may also find the *LEADS+ Developmental Model* helpful as a reflective tool.

Domain of Behaviour		Kegan's model of Human Development	LEADS framework domains					
			Leading Self	Engage Others	Achieve Results	Develop coalitions	Systems Transformation	Versatility (Shifting between Domains of behaviour)
A leader would...								
Engaging	Essential Followership	Imperial, Incorporative, Impulsive (First or Second Order)	Explore and define self in context	Explore and define how to engage with others	Working towards tasks as prescribed by context/others in the team but are not intentionally mission-aligned.	N/A	N/A	N/A
	Domain 1	Represents a stage when first forming and perceiving the world around oneself. Usually refers to stages within childhood, but can apply to those new to roles or organizations.						
	Strategic Followership	Interpersonal (Third Order)	Recognizing yourself as interdependent with others	Aligning with team or organizational values. Orientated towards affiliating well within group ("Fitting in")	Achieves goals articulated by context/others in team (cultural imperative)	Work with individuals who have commonalities including goals and attributes (group think)	N/A	Ability to shift between Strategic Followership and Essential Followership.
	Domain 2							

Importantly, this model highlights opportunities for individuals to enhance their leadership effectiveness within an AHC. Simultaneously, it can serve as a guide for health leadership development programs.[1]

Followership within the LEADS+ Developmental Model

The base of the *LEADS+ Developmental Model* is formed by our conceptions of what we call *essential followership* and *strategic followership*. Often individuals in AHCs engage with the work and mission but may not be specifically displaying (or feeling ready to act upon) their leadership capabilities. Aligned with the concepts of distributed leadership, Dickson et al. have noted that that anyone can exude informal leadership skills and that learning to lead means that you must also learn to follow.[47] That is to say, that while anyone can be a leader, not everyone must lead in all circumstances, on all teams, and in all contexts. When individuals cannot be *the* leader —i.e., when there is a more appropriate individual to lead, or the individual's energy or capacity is depleted—they must become effective followers. There is an emerging literature on the concept of followership - the capabilities to support the leader and team. While some scholars criticize the term as being outdated due to increasingly flattened hierarchies in specific cultural contexts[48,49], there are distinct situations when team members deliberately choose to follow the lead of another to implement a strategic direction, rather than be the first to exercise the power or influence needed to achieve a strategic goal.

Essential Followership. At this stage an individual is discovering their place within the organization and requires guidance to effectively engage in necessary day to day activities. An example is a newly graduated clinician (e.g., physician, nurse practitioner) who has completed their onboarding and orientation to their first clinical job in a cardiac rehabilitation unit. This clinician will looks to others within the team to lead meetings, set the clinical schedule, present, and prioritize new quality improvement projects, develop new processes etc. In this context essential followership is expected and necessary. This individual needs to acquire tacit information about the team, build relationships with team members, develop social capital, avail themselves of opportunities to complete work valued by the team, and eventually discern leadership gaps they might fill. However, at the beginning of their journey, the individual may simply need to be given a particular mandate (e.g., their initial job description).

Strategic Followership. Many individuals may find themselves evolving beyond essential followership as they seek to enhance their position within an AHC team. While a sense of belonging can certainly be affected by cultural drivers and inclusionary best practices, alignment with an organization's strategy (aims and goals) may help individuals to advance in their leadership aspirations. An example of strategic followership is a finance manager within a unit that reports directly to a head of a large academic department who seeks to integrate their actions with the ethos of the organizational culture around them, taking cues from senior leaders, and acts with more creativity and less oversight. Depending on an organization's goals and culture, this leader will morph their actions accordingly to strategic alignment. For instance, the finance manager in our example may seek to find ways to reduce costs in one sector to reallocate those costs to another area of strategic importance for the department. In some settings this has been described as leading from any seat and a manifestation of distributed leadership principles.[50]

Leadership within the LEADS+ Developmental Model

As individuals advance within an AHC, they may often head into a phase where they begin taking on both formally identified leadership roles. This leads to two types of formal leadership: *role-based leadership* and *complexity-based leadership*.

Role-Based Leadership. This category of leaders work within the boundaries and mandate of their title. Role-based leaders, sometimes described as formal leadership, often define themselves in relation to other

groups via their role. One example is a department chair. This type of leader displays high interpersonal mutuality, a term coined by Kegan to explain how an individual engages with others on a transactional level due to their perceptions of themselves. As a role-based leader identifies with their position they begin to see how to engage with other groups in a mutually beneficial manner. For example, the department chair may be protective of colleagues within the department, preventing another service unit from making unreasonable demands on their time. Those who see themselves exclusively as role-based leaders have an achievement orientation for their team to stand out, defining their own success via the team. However, this stance may result in challenges when interactions with other groups necessitate coalitions that diminish the leader's profile. Organizations that force linear and hierarchical accounting or reporting structures may inherently force individuals into role-based leadership stances. Role-based leadership structures confine the role, influence, and accountability of the leader. As well, the creativity and responsiveness of a leader may be stifled by the hierarchical processes of role-based leadership within the complex environment of AHCs.

Complexity-Based Leadership. In the *LEADS+* framework, complexity-based leaders look beyond a singular identity to wrestle with and reconcile their multiple roles. Complexity-based leadership acknowledges that people can be "leading from every seat,"[47] but also that collective and distributed leadership can be far more advantageous in complex environments.[51] These individuals self-author their leadership roles by engaging others across the AHC, identifying issues that cross programs and departments and achieve results via non-competitive wins for multiple groups (including their own). For example, a vice-president of innovation and research integrates their role as a clinician, hospital administrator and university professor to identify an opportunity for the AHC to compete for new governmental funding. Developing a proposal requires a coalition of various knowledge users that the complexity-based leader connects via their diverse professional network. This leader implements a strategy to pursue innovation funding that leverages common and intersecting needs across the programs and institutions within the AHC

Complexity-based leaders leverage shared commonalities and alignment of values to break down silos and build effective coalitions between traditionally disparate groups. Typically, this type of leader emerges from previously held formal role-based leadership positions. However, complexity-based leaders may also be outside of formal hierarchical structures; they are not limited by titles. Knowledge of organizational structures and processes allows complexity-based leaders to identify non-linear systems outside of regular reporting structures or AHC divisions. Complexity-based leaders tackle big goals beyond the immediate accountability of any one unit, helping the AHC to become less fragile.

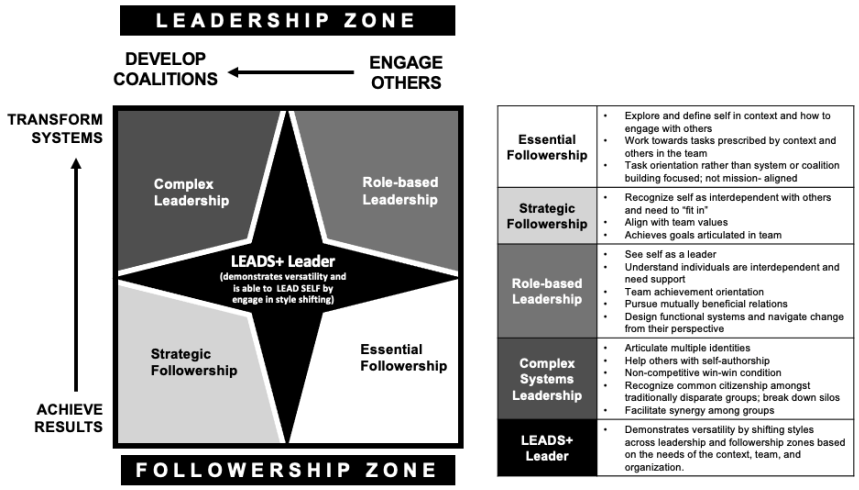

Figure 2: This graphic depicts the elements of the LEADS+ Development Model.

Versatility: Integrating followership and leadership

Leaders that exhibit versatility will adjust their leadership or followership traits to fit the situation or need. Their capabilities may exist but waiting for the right context to exhibit them is important. For example, when dealing with a global pandemic that disrupts both clinical and academic missions of an AHC[27-29], an academic department chair may be engaging with multiple departments across the AHC, dynamically toggling between leading (as the lead of their academic department) and following (as a member of a clinical group). Having this versatility to transition between roles allows an individual to align with others and fill the necessary function of serving the larger process or goal. Similar to the way that individuals might move through various milestones throughout their development and not lose their previously attained skills, we imagine versatility functioning in this way. Once the capabilities of followership and leadership are acquired, individuals would be free to enact these skills in the situations that suit it best (aligned with the theories of situational leadership[21]).

Knowledge User Consultation Findings

During our knowledge user consultation stage, we were able to receive feedback on the conceptual model from 29 out of 65 recruited individuals (44.6% response rate). Roughly one third of individuals (10/29; 34%) offered to provide verbal feedback via one-on-one interview sessions with our senior author. Most of the participants held multiple leadership roles across academia and health care (48.3%, n=14). More than a quarter of participants were senior leaders in a health care network or national society (27.5%, n=8) See Table 2 for demographic details about the knowledge users. During the knowledge user consultation stage, participants indicated their endorsement for the LEADS+ Development Model using a 10-point scale. There was a high level of endorsement: 7.93 (SD 1.7) out of 10 (1=Hated this new model, 10=Loved this new model). Most of the knowledge users surveyed felt that the framework resonated with them. One wrote that they felt the model was: "comprehensive, developmental, aspirational." See Table 3 which details themes and exemplar quotes from our survey of the knowledge users). All the interviewees thought that the framework was highly useful to them as leadership developers or relevant to them as practicing leaders. No substantial changes were suggested however, many gave contributions suggesting next steps on how they might apply the framework in their leadership programs or practice.

Knowledge User Population	Number of Respondents (n)	Percentage of respondents
Practicing Clinician	10	0.44
Leadership Researcher	3	0.13
Leadership Educator	10	0.44
Academic Leader	12	0.52
Senior Executive at Hospital	5	0.22
National Organizational Lead	2	0.09
NB: Since we purposefully sought the input of those who might bridge more than one role and exist as practitioners of leadership within complex environments, the % total is greater than 100%, since many stakeholders held more than one role simultaneously.		

Table 4: Demographics of Knowledge User Consultants

Themes from the Knowledge User Survey	Exemplar Quotes
Affirming Themes	
Appreciation for the merging of the two other conceptual frameworks to bring more complexity to the original LEADS framework.	"I do like the additional complexity and clarity that it provides to the standard LEADS framework. It has more 'depth.'"
	"It has been well thought through and is articulated well. I also like how it integrates leads with other concepts and might help practitioners think about LEADS more dynamically."
Feeling that the model resonated with their observations and experience.	"[Speaks to] the evolution of one's leadership skills and approaches resonates - also the complexity of the situation in which one is leading - the case examples were bang on and helpful in understanding the nuances between the levels."
	"I particularly like the code-switching for different roles. This is of particular importance for those moving from intense clinical environments to decanal or government roles."
Explained the complexity of multiple roles in the academic healthcare sector.	"I like the concept of the evolution as a leader over time as well as the need / ability to transition between the different behaviours based on what is called for at the time."
	"Fits very well with the model of academic medicine in which we have roles at the University and the Hospitals and in our communities, which intersect with so many other leaders."
Useful for their work as knowledge users.	"It did resonate with me. Addressing leadership in a complex world, creating conditions to build internal capacity by leading at times and encouraging others to lead at others, recognizing that we live in a dynamic world where the demands from us change (even within the same role)."
	"It can help define expectations for different roles in an organization and then help assessment individual; against those roles instead of thinking everyone needs to get to a certain point and are suboptimal if they do not. By defining leadership expectations, it also helps define a more tangible development path for mid and senior level leaders."
Connects to other models	"I keep thinking how this model will be used for leader development. Would be very helpful in leader self-assessments (360s) and coaching/mentoring over time. Emphasizes that leadership is a journey as one progresses in their career especially agility and complexity. Building leadership capabilities must begin in university/college and continue throughout one's career pathway."
	"It connects nicely the concepts of individual development and leadership development, within different contexts. It connects many existing models. ... What is nice is to see the increase in connectivity of the agent within increasing awareness of the existence of the system."
	"It describes a continuum and reminds me of Maslow 's work and inner control by Rotter."
	"Like that it links to well-known and used evidence based (health) leadership frameworks."
Concerns from Knowledge Users	
The model was felt to be very complex.	"It looks to me as a meta model, that goes beyond the usual scope of leadership models. It fits well with the reality I evolve

Discussion

We present a conceptual leadership model that is suited for the complexities of AHCs and integrates a dominant leadership framework (LEADS) *and* a theory of psychological development (Kegan's Theory of Development: The *LEADS+ Developmental Model*.

The LEADS+ Developmental Model lays bare some of the codes and cultural expectations that many organizations may have of their members, but never articulate fully. As evidenced by our knowledge user consultation, many felt that this new model resonated with them and would be useful in guiding or coaching others throughout their leadership pathway. Indeed, it has been reflected upon that by bolstering leadership development and training it is possible to enhance the visibility and leadership attainment of underrepresented groups.[52–54]

Implications for the Field

As a guide for educational programming or as a diagnostic tool, the *LEADS+ Developmental Model* provides a tailored description of the capabilities at each stage of leadership development. We also anticipate that the human resource implications in that AHCs may undertake mapping exercises to identify the necessary follower and leader phenotypes required across units or programs. Rather than assuming a singular leader construct for a team with team members rounding out the team based on technical expertise, organizations can attend to the specific capabilities required of each time of leadership role.

Limitations

This is an integrative conceptual review. The *LEADS+ Developmental Model* will evolve with additional research and development work. While informed by knowledge users, it lacks empirical evidence to support the many underlying assumptions. Further research is required to validate the *LEADS+ Developmental Model* in a range of settings While the consultation process purposely sampled from a broad range of experienced leaders and leadership educators, our analysis did not determine if theoretical sufficiency (e.g., a fulsome contribution of opinions to ensure balance and completeness) was achieved and only sampled opinions based on North American AHC leadership contexts (i.e. more egalitarian and hierarchical). Consultations with health care leaders and eduators identitifed limitations of the model, specifically: 1) the high complexity of the conceptual model, 2) similarity to other leadership models, 3) the lack of assessment tools to support this model, 4) the implied trajectory of the model may not align with an individual's intended leadership capabilities, 5) the absence of capacity-building in the model, and 6) the perceived physician-centric nature of the model.

Conclusion

The *LEADS+ Developmental model* integrates a dominant leadership model (LEADS) with the psychological development stages described by Kegan. Based on knowledge user consultation, this model effectively describes and aids the diagnosis of followership and leadership abilities necessary for leaders in complex academic health systems.

Conflict of Interest: GD is a creator of the *LEADS in a Caring Environment framework*. SR, SL, JS, and TMC have received honoraria for teaching in leadership **Ethics:** This is an integrative conceptual review paper and we received an exemption from our institutional review board confirming that we did not engage in human subjects research requiring ethical approval. **Acknowledgements:** We would like to thank the following individuals who acted as knowledge user consultants for our paper: Peter Angood, Felix Ankel, Lily I. Bale-Feldman, Sheila Betker, Stevie Colvin, Ming-Ka Chan, Kelly Grimes, Antoine Groulx, Gillian Hawker, Constance LeBlanc, Susan Lieff, Anne Matlow, Susan Dianne Moffatt-Bruce, Mike Nader, Howard Ovens, Julien Poitras, Karen Schmaltz, Ivan Silver, Jennifer Spencer, Bill Tholl, Brent Thoma, John Van

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APPENDIX 1: LEADS+ Development Model Handout PDF below

LEADS+ Development Model

Ramelli, Lal, Sherbino, Dickson, Chan

Essential Followership

Most associated with Kegan's Imperial stage (and other earlier stages).

LEADS Framework	Description
Leading Self	Explore and define self in context.
Engaging Others	Explore and define how to engage with others
Achieving Results	Working towards tasks as prescribed by context/others in the team, but are not intentionally mission-aligned.
Developing Coalitions	*Not applicable. Will not usually engage in this type of action.*
Systems Transformation	*Not applicable. Will not usually engage in this type of action.*

Essential Followership

Most associated with Kegan's Imperial stage (and other earlier stages).

The following is an illustrative vignette about a circumstance wherein a person is holding an essential followership role within a particular organization.

Beth is a payroll specialist who works in the finance department at a local hospital. She is fantastic at her job and annually attends workshops to stay current with the best practices in payroll processes for the organization. She executes payroll on time and with complete accuracy. During her 8 years working in this role no one has ever received the wrong pay cheque. Beth follows direction from her supervisor and does not question authority. She is deeply committed to her work and ensuring that she meets the expectations of her role. She understands her role but does not have a strong interest in or understanding of how her role connects with the organization's mission, vision and values and prefers to focus on team-level and operational details.

She tends to work closely with her team and has built strong trusting relationships with each team member. She often says that she could not do her work well without the support of her team members. She does not however interact with others outside of the payroll department. She never really thinks about improving processes because she is very comfortable with what she does and believes that if it is not broken why fix it. She is reliable, dependable and gets the job done!

Strategic Followership

Most associated with Kegan's Interpersonal stage.

LEADS Framework	Description
Leading Self	Recognizing oneself as interdependent on others.
Engaging Others	Affiliation orientation ("Fitting in").
Achieving Results	Working towards goals articulated by context/others in team (cultural imperative).
Developing Coalitions	Working with individuals who have commonalities including goals and attributes (Group-oriented thinking).
Systems Transformation	May engage in quality improvement and/or small changes to their portfolio when and if there is an institutional mandate.

Strategic Followership

Most associated with Kegan's Interpersonal stage.

The following is an illustrative vignette about a circumstance wherein a person is holding a strategic followership role within a particular organization.

Joon recently stepped into the role of Pain Clinic Manager in a new hospital. He has met with the department director, his new colleagues, as well as other Clinic Managers in different departments. Joon has been keen to learn more about the preferences of his new teammates, noting a strong preference for in-person meetings, decision-making by consensus, and a reliance on the past to determine best practice for issues that may arise. He knows the value of teamwork and that his ability to achieve results depends on his ability to work within his team. While he has adjusted well to this dynamic, the director has indicated that there is a need for greater collaboration with community partners to align services and provide a cohesive patient experience. Joon sees the value of working towards this organizational goal as a team, and reaches out to his colleagues from other departments to see if they have any past experience with this kind of work. Based on suggestions from other Clinic Managers, Joon has begun to invite patients to components of team meetings to share perspectives and illustrate the need for enhanced communications with community partners who are also involved in patient care. He is excited to collaboratively develop more meaningful partnerships with the community to align services and provide a cohesive patient experience by the end of the year.

Role-Based Leadership

Most associated with Kegan's Institutional stage.

LEADS Framework	Description
Leading Self	Sees and gives permission to themselves as a leader (self-authoring).
Engaging Others	Interpersonal mutuality is the predominant frame for engaging with others.
Achieving Results	Achievement orientation – seeks to win for own team.
Developing Coalitions	Articulate and pursue opportunities for transactional relationships with mutual benefit, but still sees divisions between units or groups.
Systems Transformation	Designing functional systems or navigating change from the role-based zone of control; holds a more singular perspective, specifically focused on looking out for "their group".

Role-Based Leadership

Most associated with Kegan's Interpersonal stage.

The following is an illustrative vignette about a circumstance wherein a person is holding a strategic followership role within a particular organization.

Parvinder is a Strategy, Change and Innovation Specialist at an Academic Teaching Hospital who also holds a Faculty appointment at the affiliated University. He has been focused on developing systems and processes for strategic planning both at the University and Hospital. To advance strategy and drive innovation and change at both the University and Hospital he has had to develop relationships and build coalitions across divisions in the University and departments in the Hospital.

He recognizes that he brings his leadership lens into various contexts he must be mindful of what he is bringing to the conversation. A specific project he is working on is virtual care to help reduce Emergency Department readmission rates. He has convened a team of hospital administrators, ED physicians, patients and local start-up companies to collaborate on defining the problem and finding solutions that achieve the necessary outcomes. He works diligently to ensure that everyone within his team feels valued and that conversations are mutually beneficial so that as a collaborative they can deliver on the intended results. He is great at building relationships and coalitions in service of a bigger purpose within the organization. He has a deep sense of purpose and clearly understands how the work he does fits with the mission, vision and values for the teaching hospital. He is brilliant at leading change and driving innovation but is open to collaborating with other groups, so long as they allow his organization to achieve their ends.

Complexity-Based Leadership

Most associated with Kegan's Inter-individual stage.

LEADS Framework	Description
Leading Self	Recognize and actualize multiple identities and engage in interprenetrability.
Engaging Others	Helping others to engage in self-authorship.
Achieving Results	Non-competitive win-win condition (able to actualize complexity and polarity theory into "AND" scenarios that advantage two or more groups/sides.
Developing Coalitions	Recognition of multiple and common citizenship amongst traditionally disparate groups. Breaks down silos and builds bridges.
Systems Transformation	Facilitates convergence and synergy among multiple groups via empowerment & alignment.

Complexity-Based Leadership

Most associated with Kegan's Inter-individual stage.

The following is an illustrative vignette about a circumstance wherein a person is holding a strategic followership role within a particular organization.

Maria is the VP of Strategic Partnerships at a local hospital and is an Associate Professor of Nursing at the university. In her hospital role, she is currently working with internal and external organizations to create holistic care pathways for complex patients. Within the university, she oversees the clinical placements of nursing trainees (at both the undergraduate and graduate levels). Maria has several direct reports, who are Directors and Managers of hospital units, and is facilitating interactions between them and community partners. She encourages her direct reports to develop strategies that will work within their units, and find unifying features that help achieve the Quadruple Aim (improving patient and caregiver experience, improving the health of populations, reducing the per capita cost of healthcare; and improving the work life of providers).

Maria often bridges her roles to bring her academic colleagues into discussions on how to make her quality improvement initiatives scholarly and her clinical colleagues into her classes to provide lectures on emergent topics. Maria has a strong belief that all organizations have strengths to contribute towards the Local Health Teams and win-win conditions must be established to ensure long-term productive relationships. To achieve this, she knows that sometimes she needs to step back and empower individuals across organizations to establish frameworks that work best for them. While it may not be the most "efficient" means of operating in the short-term, Maria knows it often leads to the most "effective" solutions in the long run.

Domain of Behaviour		Kegan's model of Human Development	LEADS framework domains					Versatility (Shifting between Kegan Definitions)
			L Leading Self	E Engage Others	A Achieve Results	D Develop coalitions	S Systems Transformation	
Leading	Complexity-based Leadership	**Inter-Individual** (Fifth Stage) *Individuals see themselves as highly connected within a complex world across various systems. Seeking to connect and transform systems that should link.*	Define and articulate multiple identities	Help others to engage in self-authorship	Non-competitive win-win condition (complexity and polarity theory - "AND")	Recognize multiple and common citizenship amongst traditionally disparate groups, break down silos and build bridges	Facilitate convergence and synergy among multiple groups via empowerment, and alignment	Ability to shift between Complexity-based Leadership to Role-based Leadership to Strategic Followership.
	Role-based Leadership	**Institutional** (Fourth Stage) *Individuals see themselves as actors within systems.*	Gives themselves permission to see themselves as a leader	Understanding individuals are interdependent and need mutual exchange/support	Achievement orientation - winning for own team	Articulate and pursue opportunities for transactional relationships with mutual benefit	Design functional systems or navigate change from their zone of control; singular perspective	Ability to shift between Role-based Leadership to Strategic Followership.
Engaging	Strategic Followership	**Interpersonal** (Third Stage) *Individuals see their role in society or an organization.*	Recognizing yourself as interdependent with others	Aligning with team or organizational values. Orientated towards affiliating well within group ("Fitting in")	Achieves goals articulated by context/others in team (cultural imperative)	Work with individuals who have commonalities including goals and attributes (group think)	N/A	Ability to shift between Strategic Followership and Essential Followership.
	Essential Followership	**Imperial, Incorporative, Impulsive** (First or Second Order) *Represents a stage when first forming and perceiving the world around oneself. Usually refers to stages within childhood, but can apply to those new to roles or organizations.*	Explore and define self in context	Explore and define how to engage with others	Working towards tasks as prescribed by context/others in the team, but aren't mission- aligned.	N/A	N/A	N/A