Chapter 9
Leading Health Profession Educational Programs for Better Health Care Services

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Abstract As disease trends, health economics, and services are rapidly and globally changing, the training of the workforce needs to evolve to match the requirements. This change entails that besides clinical skills, health professionals require strong leadership skills to strategize and manage educational reforms. However, the roles and the context of practice can be very different when one compares educational leadership and hospital leadership in health professionals. In this chapter, readers will explore the three focus areas of leadership in medical education—policy development, academic development, and practice management. We will define the fundamental leadership theories and management styles. With the application of Hofstede's theory, investigate the influence of culture on how leadership and management are conceptualized in the local context. Finally, the chapter will propose a framework for leadership training in medical education.

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9.1 Introduction

9.1.1 The Importance of Leadership in Medical Education

> *To lead people, walk beside them. As for the best leaders, the people do not notice their existence … When the best leader's work is done, the people say, 'We did it ourselves!'*
>
> —Lao Tsu, Chinese philosopher

Nurturing and developing leaders with the relevant and effective core skills are critical to maintaining a high-quality learning environment for students and residents in medical and health professions education. The focus of many educational programs globally as well as studies on effective leadership skills are becoming common due to its importance in recent times.

Strategizing and managing these educational reforms need excellent leadership capabilities. The health professional leadership is ultimately to improve and provide better care to patients and communities as stated by the World Health Organization in 2008. For this to occur, we must transform our educational and training environments to develop the next generation of practitioners who could adapt and adopt to diverse practice conditions.

Many high-performing academics, health professionals, and administrators discover during their career, the challenge of leading a strategically significant transformation program. The need becomes critical when the institution needs to move in a new direction, reform the curriculum/program accelerate management innovations with reduced costs, and improve university rankings by competitive positioning.

Leadership in academic medicine or health professions is an area of study within educational scholarship as discussed by Middlehurst and Elton (1992). They identified three main areas of focus in academic leadership. These are educational policy development, academic development, and practice management. Policy development in academic leadership is crucial for setting a good vision and a strategy for the institution or the program. The policy may also focus on international and national level learning environments. This involves a stepwise engagement and data collection such as conducting a needs analysis, identifying the key personnel in leading the different areas of the policy development, gathering information, developing the first draft, engaging with the stakeholders to get their feedback on the draft policy, finalizing and implementation as well as evaluating the implementation. The second area in leadership is the academic development. This involves developing faculty members and promoting academic collaboration in education, research, services as well as communicating clearly with the persons concerned and public on academic-related matters. The final and third area is the administrative role of an academic leader. This focuses on developing processes in the institution to establish and maintain reliable, efficient systems that would lead to increased responsibility and accountability of the individual and the collective. The administrative leadership also involves matters relating to the well-being of the persons in the institution and includes activities

Fig. 9.1 Medical education leadership focus areas

and resources that would create a safe and conducive working climate that would motivate the staff (Fig. 9.1).

One area of interest is that until recent times academic leadership in health professional education was not featured as much as the leadership in hospital and healthcare facilities management. More focus was given to the development of knowledge, skills, abilities, and attitudes necessary for managerial or leadership levels in hospitals or similar caregiving settings (Middlehurst and Elton 1992).

9.2 Leadership in Medical Education in the Twenty-First Century

Today's practitioners need the ability to think globally, be aware of trends and adapt them to their local context. It is also imperative that they are equipped to face rapid changes, diverse conditions and teams. Creating nurturing environments for students and trainees to develop skills and attributes aligned to twenty-first century needs requires our universities and healthcare institutions to transform, a collective vision and strong leadership (Soffel 2016). For these qualities to develop, one needs to provide a clear framework for leadership development based on best evidence to support the faculty. Despite the increasing emphasis in recent times on educational leadership in medical education, most of the efforts have been on the leadership development of healthcare professionals in hospital settings. The roles and the context of practice can be very different when one compares educational leadership and hospital leadership in health professionals. In a systematic review carried out by Pihlainen et al. (2016) and Berghout et al. (2017) on leadership in health services, only two articles were related to educational leadership in medical education. Another significant feature is that published literature and the frameworks used are from Western settings such as Canada, the United States of America (USA), Switzerland, Germany, and Austria. There is a need to increase the work of educational leadership in medical education (Lieff and Albert 2010; Nordquist and Grigsby 2011), especially in Asian

settings where the socio-cultural context can be very different (Groysberg et al. 2018). This can also play an important part where leadership in some settings is described as leader-centered perspectives (Citaku et al. 2012; Sanfey et al. 2011) and cultural-centered perspectives (Jippes et al. 2013; Lieff and Albert 2010). Transformational leadership and Bolman and Deal's (Bolman 1991) leadership framework are examples of leader-centered perspectives and cultural-centered perspectives, respectively. This chapter will explore the key leadership theories and management styles as well as explore how cultural influences could affect the way we conceptualize leadership and management. We will also discuss some of the core competencies required in medical education leadership as well as the approaches that could be taken to mitigate the challenges posed.

9.3 Leadership Versus Management

It is important to understand the differences between leadership and management. Leadership is the process of influencing others to attain a common goal through developing a common vision. On the other hand, management focuses on the efficiency of an organization. It is concerned with the allocation and organization of resources such as labor, time, funding, and maintaining stability within the organization (Bush and Middlewood 2005; Middlehurst and Elton 1992).

While there can be some key differences between the key attributes of good leaders and managers and their approaches to work, there are also some similarities and synergies to achieve the common goals of the institution as depicted in Fig. 9.2.

Fig. 9.2 Characteristics of the leader and manager

9.4 Leadership

As we look ahead into the twenty-first century, leaders will be those who empower others.
—Bill Gates, co-founder of Microsoft

Developing the relevant academic leadership characteristics in medical and health professional education, as shared in the introduction is the key to develop innovative learning environments to equip our students and trainees to face practice challenges of the twenty-first century. A leader in a learning institution should have the ability to influence a group of followers to achieve a common goal or vision. An effective leader shows several attributes that help to inspire and influence their followers. First, they build "Trust" among the key stakeholders. The followers are willing to take risks and engage in new strategies when they know that their leader is supportive and dependable. This is key in developing Communities of Practice (CoP) where the followers focus on achieving the leaderships vision by developing engaging, effective, and trusting networks (Tschannen-Moran 2014).

Another key academic leadership character is "Empowerment" of their followers. This is done by identifying the right persons to be in the team and delegating the tasks appropriately, focusing on their strengths and further building on these, monitoring through oversight to provide constructive feedback to the followers and teams and develop a culture of recognition and reward for achievements. Empowerment of follower teams occurs when a leader engages in these behaviors (Whitaker 2020) (Fig. 9.3).

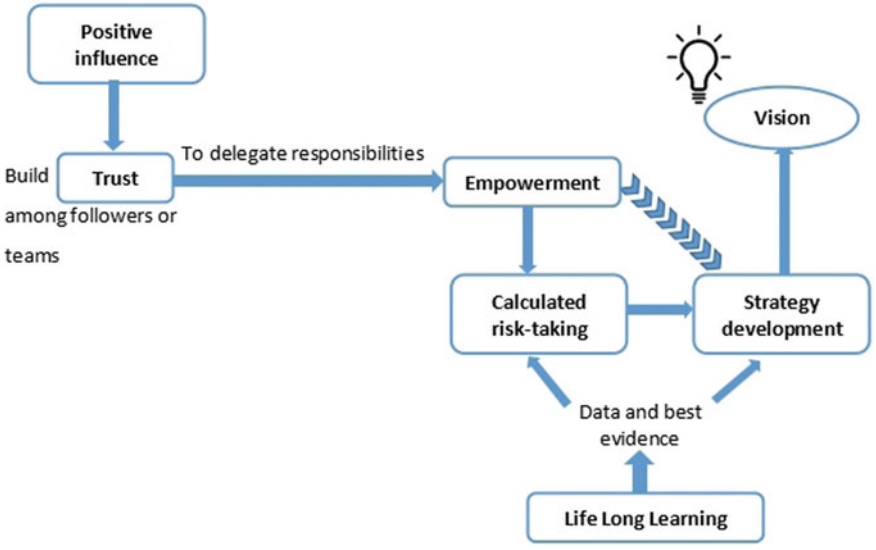

Fig. 9.3 Characteristics of a good leader

A good academic leader will also shape their vision and the strategy for the organization based on contemporary best evidence and data. For this, they are people who constantly learn and are excellent examples of lifelong learners. Furthering their knowledge and skills, being passionate about their work and engaging in lifelong learning are inherent characteristics of a good leader in academic settings (Taylor 2014).

Finally, another important characteristic is that they take calculated risks and lead by example for their followers. Setting an example is a strong motivator for the follower teams and for them to take similar approaches when they engage in tasks to achieve the final goal for the institution (Schrage 2016).

9.5 History of Leadership Theories

In order to appreciate the characteristics and the current leadership models better, we would like to discuss briefly the theories underpinning academic leadership and their gradual adaptions and evolutions to modern-day leadership models.

9.5.1 Early Leadership Theories

"Lead me, follow me, or get out of my way."
—General George Patton

9.5.2 "Great Man" Theory

The "great man" theory was popular in describing leadership in the late nineteenth and early twentieth centuries. This theory assumed that a leader possesses certain specific qualities inherent to the person, in particular, characteristics such as charisma, intelligence, and dominance. These leaders assumed to have such qualities from time of birth and developing and assuming such qualities later on in life were not possible (Gumus et al. 2016; Kirkpatick and Locke 1991; Madanchian et al. 2016).

9.5.3 Trait Theory

The trait theory evolves from the "great man theory" whereby the development of specific leadership qualities could be assumed either inherently or can be developed later on in life. This focuses on a variety of personality traits and characteristics that are linked to successful leadership in different contexts of practice (Gumus et al.

2016; Kirkpatick and Locke 1991; Yukl 1989, 2011). The trait theory has received renewed interest in recent years with the possible use of tools to identify potential leaders within the organization (Goleman 2000; Judge et al, 2002; Northouse 2019).

9.5.4 Behavioral Theory

The development of behavioral theory was due to criticism about the trait theory. The behavioral leadership theory focuses on one's ability to learn from other successful leaders and be trained to be good leaders. This is a major departure from the previous two theories where the major assumption was that good leadership is inherent to the person from birth. Behavioral theory categorizes the behavior of an effective leader into four categories: task-oriented, relational-oriented, change-oriented, and passive leadership (Derue et al. 2011).

9.5.5 Situational Leadership Theory

The situational leadership theory challenges both trait and behavioral leadership theories. It asserts that there are no ideal qualities or behaviors that would define a leader in all contexts and situations. Instead, an effective leadership practice is dependent on the current situation (Adair 1973; Hersey et al. 1982).

9.5.6 Current Leadership Models

> "Before you are a leader, success is all about growing yourself. When you become a leader, success is all about growing others."
>
> —Jack Welch, former GE chairman and CEO.

As described earlier, from the 1950s onward, there is a gradual shift of focus from theories defining inherent traits in leaders to developing their behaviors. We would be discussing a few models currently used in medical and health professional education.

9.5.7 Managerial Leadership

Managerial leadership is an interesting model that was developed in the 1970s. This requires leaders to focus on tasks and behaviors. The model describes how a manager

could fit into a leadership role without taking up a leadership position in an organization hierarchical structure. Authority is allocated among workers through formal positions in a bureaucratic hierarchy (Leithwood 1999; Watkins 2012).

9.5.8 Transactional Leadership

The transactional leadership model leans toward a more structured management model. It can be described as a model with a strong formal authority who delegates the task to their subordinates. Transactional leadership leverages the existing organizational structure and evaluates success based on the organizational matrix. Transactional leaders have formal positions and authority in an organization. Individuals operating within these organizations are motivated by the organization's systems of rewards and penalties. This model of leadership works well in large academic organizations with branches in many places with linear work processes (Avolio et al. 1999; Howell and Avolio 1993).

9.5.9 Distributed Leadership

The distributed leadership is based on the notion that no one individual is an ideal leader in all situations and contexts. As such the leadership approach is informally distributed and dispersed. This suggests a more collaborative and inclusive approach to leadership. Distributed leadership is seen in many medical education training settings during curricular or organizational reforms where experts lead the changes and reforms in the organization creating opportunities to build a strong network of community. The main focus is on working with each other's strengths and expertise to achieve the set goals rather than individual leadership roles or traditional leadership responsibilities (Hargreaves et al. 2014; Harris 2013; Leithwood et al. 2009).

9.5.10 Servant Leadership

Contrary to most leadership models, servant leadership takes a bottom-up approach. Greenleaf's theory of servant leadership follows the notion that leaders are committing to serving their followers (Greenleaf and Spears 2002). This can be via fostering, nurturing, and nourishing followers in the organization to become their best possible self. A servant–leader could be an individual or the organization itself and concentrate to develop the well-being of people and the communities to which they serve (Cerit 2009).

9.5.11 Transformational Leadership

Transformational leadership is a widely used model in recent times. It addresses how organizations are led in times of change. Transformational leadership is described as one that has clear vision and values; motivating followers to achieve long-term goals by aligning their personal values to that of the organization, which can inspire positive changes in those who follow. Some of the major attributes of a transformational leader are being active, eager, and passionate. The key of transformational leadership is that the leader actively assists their followers to develop and succeed as well. (Allen et al. 2016; Bass and Avolio 2000; Choi et al. 2016).

9.6 Types of Management Styles

"What's measured improves"
—Peter F. Drucker.

Management styles refer to the approach or behavior that one uses during their interaction with others to complete a task. The focus of management is to improve efficiency with the organization or the academic program. Good problem-solving skills, clear decision-making, and clarity in communication are important for a good manager. It is useful to note that is not one best style or way to manage people. Instead, it should adapt based on the context and situation.

9.6.1 Formal Management

The formal management model views organizations as a bureaucratic structure with many levels of hierarchies. Therefore, decision-making processes tend to concentrate on the upper management where they are expected to have greater expertise and would, therefore, hold more power (Weber et al. 2012).

9.6.2 Collegial Management

Collegial management can be described as the normative, shared power across all stakeholders of an organization. This follows the principle of collaboration, and stakeholders are expected to have common visions and values. Collegial management can be used in organizations such as tertiary institutions whereby stakeholders are well informed and professional; and would be able to contribute to the decision-making process (Hargreaves 2003).

9.6.3 Political Management

In political management, the decision-making processes are influenced by the organization's association with certain groups or alliances. Therefore, organizations may deviate from their institutions' goals and vision (Hoyle 1986).

9.6.4 Subjective Management

The subjective management model is described as one by which each individual would influence the decision-making processes in the organization. Individuals would have their own thoughts and perspectives based on their backgrounds and values. These subjective perceptions would lead to different interpretations of every aspect of the organization (e.g. structure, processes, and people) (Bush 2013).

9.6.5 Ambiguity Management

The ambiguity management model describes the decision-making process as a fluid process. This can be due to unclear goals, systems, and processes. Therefore, individuals may either be unaware of the rights they have or choose to opt-in or out of the decision-making process (Cohen et al. 1986).

9.6.6 Cultural Management

Cultural management of an organization relies on each individuals' values and norms. These values and norms are emphasized through symbols or traditions within the organization. A strong organizational culture is critical to the organization as it creates a sense of identity among the individuals within the organization (Schein 2004).

9.7 Followership

"Followers are more important to leaders than leaders are to followers."—Barbara Kellerman

The early definition of followership is the willingness to follow a leader. However, this is not a true reflection of followership in medical education. While followership may be difficult to define, it is dependent on who they follow, which would affect the engagement or influence they have. Followers are often overlooked but for

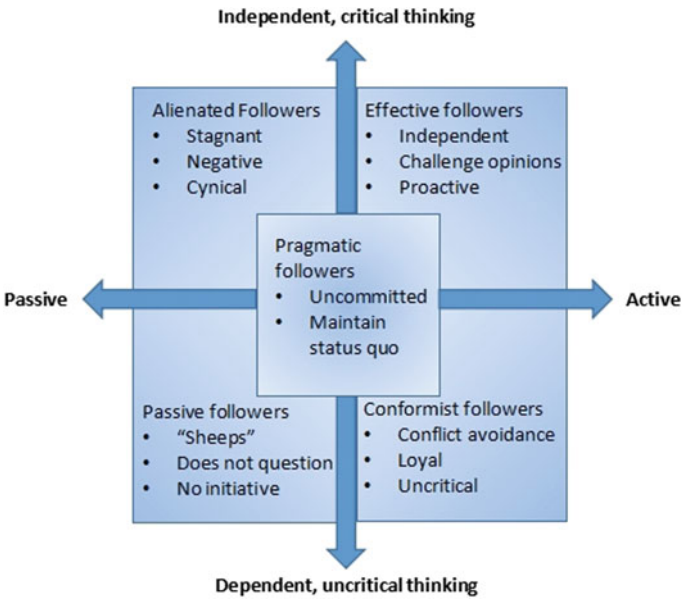

Fig. 9.4 Robert Kelley five followership model (Kelley 1988)

leaders to be successful, they would need effective followers. Kellerman, in the 2008 article, Followership: How Followers Are Creating Change and Changing Leaders, has described five types of followers based on their active or passive engagement and dependent, uncritical thinking or independent, critical thinking abilities. Figure 9.4 shows these five types below.

A leader must devote her/his efforts to develop a set of followers who are good followers with active engagement, independent and critical thinking abilities to support the leadership in achieving the vision. As discussed earlier, the key is for the leader to build trusting relationships with the followers. This can be achieved by having a regular discourse with the followers to further improve clarity of vision, encourage the followers to ask challenging questions as well as to prompt them in asking such questions, seek timely feedback as well as appreciate their contributions. Delegating responsibilities and using the followers' expertise to enhance and refine the vision will also strengthen the trust thereby the bond between the leader and follower. Having an intelligent active set of followers can enhance the leader's skills by shaping their thinking to further refine and improve the vision and strategy (Gibbons and Bryant 2012; Kellerman 2008; Kelley 1988; McKimm et al. 2017).

9.8 Culture and Context

"Culture is like the wind. It is invisible; yet its effect can be seen and felt."
—Bryan Walker

Earlier in the chapter, we have iterated the importance of leadership in medical education and described the different types of models of leadership and management. It is important to consider leadership within the context of culture, hierarchy, and collectivism of a particular country or organization when focusing on developing leadership in medical education. In an academic or practice work environment, influence of both the societal and organizational cultures on the leadership and, in turn, the leadership's engagement with the followers and faculty sets the pace for achieving the vision as well as the performance. Sometimes, in academic institutions following global trends and due to pressure to move up academic ranking, leaders tend to ignore cultural influences and incorporate foreign practices that could be alien to the faculty. This can lead to negative consequences and even be detrimental to achieving the institutions' long-term goals (Chamorro-Premuzic and Sanger 2016; Khan and Law 2018; Schneider 1989).

The Hofstede theory was developed as a framework to correlate six different dimensions of cultures across societies (Hofstede). This could be used as a framework to understand both the societal and organizational cultures when focusing on developing leadership capabilities and strategies within an institution. The six dimensions are listed below:

1. Power distance index: Determines the extent of inequality and power
2. Uncertainty avoidance: The society's tolerance for ambiguity
3. Individualism versus Collectivism: The degree by which individuals are integrated into groups
4. Masculinity versus Femininity: The distribution of masculine and feminine values as a society
5. Long term versus Short term: The society's value on the future
6. Indulgence versus Restraint: A society's desire for needs or gratifications.

The countries' scores on the dimensions are relative to each other and scores would only be meaningful when they are compared against each other.

In addition, it has also been noted that the patterns of interactions between students and teachers may be affected by other dimensions. Hence, one from an individualistic society may not display the expected patterns of behavior.

9.9 Power Distance Index

Individuals from a society with a larger power index (e.g. Malaysia—100%) would observe that individuals with less power to rely more on those with more power

for direction (Hofstede 2007). To place it in the context of medical education, in such societies, a more unidirectional transaction would take place. This is whereby a teacher would be seen as one who provides students with information or the followers expecting the leadership to craft a vision and a strategy for the institution.

This could be compared to a society with a lower power index (e.g. United States—40%). In such societies, the organizational structures are expected to be flat and non-hierarchical (Hofstede 2007). One would expect to observe a more participative style of management and a more multidirectional transaction to occur. In the context of medical education, the teacher would perhaps facilitate a discussion instead (Hofstede 1986).

Given the stark differences in environments between societies with higher or lower power distance indexes, the types of leadership models adopted by the respective societies would differ. A more transactional or managerial leadership approach may be appropriate for a society with a higher power distance index. Instead, a distributed or transformational leadership approach would be more applicable to a society with a lower power distance index (Faucheux et al. 1982; Jamieson and Thomas 1974).

9.10 Individualism Versus Collectivism

This dimension aims to measure the extent to which individuals view themselves as individuals or as a group. In societies with a low index (e.g. Singapore—20% and Malaysia—26%), individuals in such societies view themselves collectively as a group, clan, or family. Students who have originated from a society that is more collectivistic may place greater importance of the success and harmony of the team. A more collectivistic society could instill levels of hierarchy defined by age and gender, and this could perhaps influence a student's behavior in class. Students from a more collectivistic society might be more reserved and less likely to share their thoughts in a classroom setting (Hofstede 1986).

Individuals from a society with a higher index (e.g. United States—91% and United Kingdom—89%) tend to view themselves as individual units. Members of these societies tend to care for themselves or immediate family members. As such, there is less emphasis on hierarchies, and communications are expected to be loose and free-flowing. Students who have originated from these societies tend to be more forthcoming with their thoughts in a classroom setting. There is also a tendency to solve problems on their own as such societies promote independency (Garratt and Stopford 1980).

Leaders from an individualistic society would tend to take a distributive approach. Decision-making processes would be less centralized as there is less hierarchy within organizations and a more open communication between individuals. Leaders from a more collective society might take a more top-down approach whereby decision-making would be more centralized. A leader from a more collectivistic society would also tend to make decisions in the interest of the welfare of the group or clan as a whole.

9.11 Leadership Learning

"*Leadership and learning are indispensable to each other*"
(John F. Kennedy, 35th President of the United States).

One of the crucial facts about leadership in healthcare is that it can be learnt, and there exist various programs that engage in this. The focus of programs has varied from undergraduate, postgraduates to junior, and senior faculty. There are courses, workshops, and certificate degrees. The training may be curricular or co-curricular. Their orientation, philosophy, pedagogies used may vary; however, most of them have an impact albeit of varying degrees. Since leadership training is required in all health care workers, a model syllabus should aim to be interdisciplinary. The program should ensure the development of universal skills and individual growth. Many competencies have been described in literature. Ladhani et al. suggest these can be simplified as (Ladhani et al. 2015):

1. Understanding self
2. Leading and managing
3. Understanding health systems.

Research has identified factors contributing to the success of a leadership program (Sonnino 2016). They are:

1. Creating a culture of support
2. Encouraging high involvement and mentorship
3. Using a wide array of pedagogies
4. Longer learning times with continuous support
5. Inculcating personal responsibility for self-development
6. Ensuring allegiance to continuous upgrading.

Planning a curriculum for leadership requires the balanced orientation of essential components—purpose, objectives, methods of teaching/learning, and assessment strategies. The design reflects the objectives of the course and the expertise of the instructor is essential. The faculty besides being an expert in his field should also be competent in facilitating, supporting, mentoring, and challenging the learner to propel his/her growth (Shah et al. 2019).

It would be useful to consider a framework for planning leadership learning. A simple yet comprehensive framework is the one described by Guthrie and Jenkins (Guthrie and Jenkins 2018). Using a metaphor of a steering wheel, they elucidate the main components of the framework: knowledge, training, development, observation, engagement, and metacognition. Knowledge of leadership theories is the encompassing and bedrock of the structure. The key is to develop metacognition of the person through reflections on one's knowledge acquisition, skills gained in leadership by engaging the stakeholders during practice, and observations (Fig. 9.5).

Knowledge requires learning information and insights about the process of leadership. It encompasses both technical and humanistic aspects. Leadership development

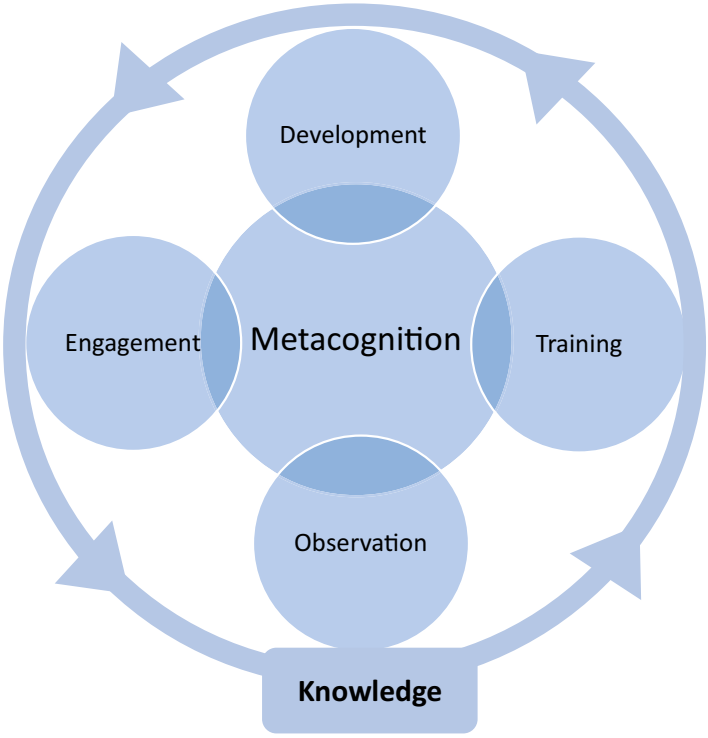

Fig. 9.5 A framework for leadership training

dwells on the intrapersonal and human qualities of leadership learning. The spotlight is on developing personal values and ethics, motivation and preparedness to lead, understanding myriad sides of self, including identity. While it includes developing a leader at the individual level, it also focuses on relationships and growth as a group/team. The leadership training ensures that competency/skills are developed. It is the demonstrable facet of the learning and, to an extent, it is the skill the leader would be able to perform at the end of the training and in the current position. Observation denotes the passive but extremely important aspect of social, cultural, and observational facet of learning. It highlights that learning is influenced by culture, and social learning is an important component of gaining wisdom. Observation is intentional and a leader develops the ability to have both deductive and inductive appraisal and reflection of the situation. Appreciating the differences and diversity of styles across cultures is a key realization. Engagement is an active constructivist process where the learner is exposed to direct personal experiences of leadership and makes sense of the incident. Interpersonal engagement has been uniformly found to be useful especially in higher education. Metacognition helps the leader to be mindful. Learning is to be reflective, using critical thinking and deciding when, where, and why a specific strategy or approach would be useful to resolve issues.

While many pedagogies have been described in the literature, it was Allen and Hartman who identified specific pedagogies, which would serve the learning of leadership. Jenkins recognized two dozen specific T/L methods, which were implemented in undergraduate and online leadership training (Shah et al. 2019). The most common method is class discussion (offline or online). Others are group and individual projects and presentations, self-assessments, and reflective journaling. Using the above framework of Guthrie et al., we can describe methods of teaching and assessing the leadership learning (Table 9.1). Culture affects learning and being culturally competent is a requirement in today's global world. The leadership training should aim for culturally competent leaders.

In conclusion, leadership training is definitely effective and causes an improvement in the reaction of participants, learning, transfer, and positive outcomes. The efficacy differs depending on design, delivery, and implementation qualities. For improved outcomes, use of need analysis, feedback, varied pedagogies, phases of spaced training, qualities of teacher, and acceptance of diversity and respect are required (Lacerenza et al. 2017; Shah et al. 2019).

9.12 Future of Leadership Development in Medical and Health Profession Education

"Leaders instil in their people a hope for success and a belief in themselves. Positive leaders empower people to accomplish their goals." Unknown

The core mission of medical and health professional education is to develop graduates who can provide safe and effective healthcare to their patients and communities (Samarasekera et al. 2018; Sandhu 2019). Our academic and clinical training institutions are facing many challenges. Providing quality training to develop safe, efficient, and effective future practitioners under limited resources, higher cost of training and also while mitigating many clinical situations such as pandemics requires strong leadership capabilities. A systematic programmatic approach is needed to effectively incorporate leadership training into our programs from student level to practicing professionals. This would enable the academic faculty and clinical practitioners to work together not only in transforming healthcare practice but also to see the relevance of their labor in a particular context or a situation. Providing those relevant training in a graduated and timely fashion will lead to developing situational leaders who have the required skill sets, roles, and responsibilities tend to emerge in different contexts and situations. The suggestion that leadership can be included in competency frameworks is based on several assumptions. The notion is that leadership is no longer an inherent trait but a learnable set of practices. Second, leadership can be observed at all levels of medical practice. It would be possible to include leadership as an intended and defined learning outcome. Therefore, it is important to start equipping all medical professionals from entry to basic training and regardless of

Table 9.1 Examples of teaching and assessment strategies

	Knowledge	Development	Observation	Engagement	Training	Metacognition
Teaching strategies	• Lectures • Case studies • Flipped classroom	• Personal statements • Storytelling • Videos	• Shadowing • Service learning • Movies	• Action learning • Games • Problem-based learning	• Simulation • Role play • Skill-based instruments	• Reflective essays • Field work • Reflective practice
Assessment methods	• Quiz • Written assignment • Discussions	• Reflection • Role plays • Self-assessment instruments	• Reflective journals • Individual discussions • Rubrics	• Presentation • Discussion • Feedback	• Checklists • Rubrics • Mentorship	• Reflective essays/ blogs/ journals • Poster • Synthesis paper

their level of seniority, with the necessary leadership skills (Han et al. 2019; Hayden 2017; Dujeepa et al. 2021).

9.13 Leading Teams to Work with Technology

As medical education continues to evolve and progress with time, the gradual incorporation of technology, digitalization, and artificial intelligence into the field of medical education is inevitable. These technologies aim to facilitate the dissemination of knowledge, enhance coordination skills, enhance teamwork among the many other goals (Guze 2015). The leadership role is more important than ever as a leader would aim to harness the true value from the adoption of technology and digitalization. There needs to be strong leadership to train and equip the current pool of healthcare professionals in order to embrace new technology; as well as to identify and retain talent in this field.

With the increased use of technology, business and organizations have also reported a disruption to traditional hierarchies in the organizational structure (Bartol and Liu 2002). For example, the adoption of data processing technology by a hospital in Michigan had led to many changes, which included improvements in decision-making processes and greater transparency on the performances of the healthcare professionals (Weiner et al. 2015). The channels of communication today are also affecting how leaders are able to communicate and work with their followers (Hambley et al. 2007; Horner-Long and Schoenberg 2002). Therefore, in order to use technology to achieve the goals of developing safe and effective healthcare practitioners, leaders of today have to adapt and adjust their leadership styles in order to engage and motivate their followers.

9.14 Summary

Leadership development in academic medicine and health professions education is an important feature. However, the choice of leadership styles is dependent on the particular context and situation. It is, therefore, of utmost importance to equip practitioners with the necessary skillsets starting from their formative years of training and to provide them a safe conducive environment with opportunities to experiment and apply these skillsets throughout their studies and careers. Investing adequate resources into training our healthcare professionals is important as these will develop leaders with good capabilities and would enable workplaces, hospitals and training institutions to retain talent, reduce burnout, and promote innovation. With this, both the academic faculty and practitioners of healthcare professions will be able to adapt to a dynamic and rapidly changing practice environment.

Key Learning Points

- Training in leadership for health professions education should be introduced at an early stage in one's training or career
- Effective leaders have good followers, and being an exemplary follower shapes one's future leadership skills
- Cultural influences play a pivotal role in one's ability to lead or manage an educational practice environment.

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