Chapter 4

MILITARY MEDICAL LEADERSHIP

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INTRODUCTION

Leadership is the enhancement of behaviors, cognitions, and motivations to achieve goals that benefit individuals and groups. Military medical leadership must consider situations and interactions among healthcare team members, line commanders, and the public to achieve these goals. The FourCe-PITO leadership framework presented in this chapter includes four domains of leadership—character, competence, context, communication—across four levels of interaction—personal, interpersonal, team, organizational. This framework draws upon many leadership models and is intended to help develop adaptive and effective leaders.

"*Omnia uno tempore agenda*" ("Everything had to be done at once") is how Julius Caesar described his response to an attack by the Nervii, the fiercest of the Belgic tribes of northern Gaul (modern-day northern France), in 57 BCE. The attack came at three different points on his flanks while part of his army was crossing a river and another part was setting up camp. At one point in the battle, his Twelfth Legion was hard-pressed, fighting too closely bunched together. Caesar described his own perception and actions in third person:

> He perceived that his men were hard pressed . . . he likewise perceived that the rest were slackening their efforts . . . having therefore snatched a shield from one of the soldiers in the rear (for he himself had come without a shield), he advanced to the front of the line, and addressing the centurions by name, and encouraging the rest of the soldiers, he ordered them to carry forward the standards and extend the companies, that they might the more easily use their swords. On his arrival, as hope was brought to the soldiers and their courage restored, while everyone

for his own part, in the sight of his general, desired to exert his utmost energy, the impetuosity of the enemy was a little checked.[1(ch25)]

Effective leadership was key to the success of Caesar's army. His leadership involved **character** (he "advanced to the front of the line"); **competence** ("encouraging . . . the soldiers . . . to carry forward the standards"); comprehension of the **context** ("he perceived that his men were hard pressed . . . that the rest were slackening their efforts"); and clear **communication** ("addressing the centurions by name").[1]

Leadership is expected of military medical professionals, and is essential for the success of the Military Health System (MHS). Leadership is defined as the enhancement of behaviors (actions), cognitions (thoughts and beliefs), and motivations (reasons for actions and thoughts) to achieve goals that benefit individuals and groups. Military medical leadership must consider situations and interactions among healthcare team members, line commanders, and the public to achieve these goals. Leadership depends upon who the leader is; what the leaders knows and does; and where, when, and how the leader acts. The FourCe-PITO framework includes elements of various leadership models and is intended to increase the understanding, development, and evaluation of leaders and leadership.[2] The four Cs (character, competence, context, communication) address who, what, when and where, and how, respectively. PITO (personal, interpersonal, team, organizational) addresses levels of psychosocial interaction and awareness. While this chapter discusses the training construct utilized at the Uniformed Services University of Health Sciences, leadership training is a lifelong journey.

FOUR CE-PITO FRAMEWORK OVERVIEW

The FourCe elements are consistent with Army,[3] Navy,[4] and Air Force[5] leadership concepts. Other models identify various "Cs of leadership."[6–12] The FourCe (or four C) domains are:

- **Character** ("who" the leader is) refers to all aspects of the individual, including demographics, attributes, personality, attitudes, values, and physical characteristics. Self-awareness of character is critical for a leader to achieve optimal success.
- **Competence** ("what" the leader knows and does) includes role-specific and transcendent leadership knowledge and skills (eg, critical

thinking, decision-making, problem-solving, motivating others, emotional intelligence). Both types of knowledge and skills are learned, refined, and honed with experience and effort.
- **Context** ("when" and "where" leadership occurs) involves physical, psychological, social, and cultural environments. It also includes effects of stress and the importance of situational awareness.
- **Communication** ("how" leaders interact with followers) is sending and receiving information, verbally (oral and written words) and nonverbally (nonverbal elements of oral communication, body language, and facial

expressions). Most models of leadership include communication as a competence. Communication is identified as its own domain to emphasize and highlight its importance.

These four Cs of leadership occur across several psychological and social levels. The four psychosocial levels (PITO) were developed by the leadership training program at the US Air Force Academy.[13–15]

- **Personal** focuses on aspects of the individual leader and self-awareness.
- **Interpersonal** focuses on interactions between the leader and others (eg, patient, colleague, subordinate, superior officer).
- **Team** focuses on operations of small groups (eg, healthcare professionals) aligned around a shared task, goal, or purpose.
- **Organizational** focuses on large groups, institutions, and systems.

The FourCe domains and PITO levels overlap, interact, and operate together. The FourCe-PITO framework is relevant to education, development, and assessment of leaders (ie, the persons who lead) and of leadership (ie, the relationships and culture of aspiration and inspiration). The FourCe-PITO framework is intended to be inclusive and comprehensive.

WHY DEVELOP MILITARY MEDICAL LEADERS?

For the past 40 years, the Harris poll has asked Americans whether they had confidence in the leadership of American institutions. For as many years, medicine has ranked among the top groups that inspired confidence among those polled.[16] In 2014, the medical doctor was considered to be the most prestigious occupation in the United States by another Harris poll.[17] Physicians and medical professionals are expected to lead.

The military officer was the second most prestigious profession in America, according to the 2014 Harris poll, rated as "prestigious" by 78% of Americans, just behind physicians (88%). Nurses also were listed in the top five professions. America has "a great deal" of confidence in military leadership according to both Harris and Gallup polls.[16,18] In fact, military leadership has been highly ranked in Harris polls as confidence inspiring for decades. In the United States, the military epitomizes leadership. American military officers are expected to and must lead.

Despite these high expectations of leadership from physicians and military officers, a 2011 report of the RAND Corporation in collaboration with the MHS Office of Transformation, titled *Developing Custodians of Care*, indicated a need to improve healthcare leadership development within the MHS.[19] This call was consistent with the 2008 Affordable Care Act's focus on the development of "accountable care organizations" in which "doctors, hospitals, and health care providers come together voluntarily to give coordinated high quality care to the Medicare patients they serve."[20] Physician medical leadership is necessary for the healthcare system to be effective, efficient, and accountable. For the MHS, which serves the nation's warriors and their families, physician leadership to optimize performance, safety, and effectiveness, while containing costs, is essential.

WHY IS MILITARY MEDICAL LEADERSHIP IMPORTANT NOW?

The MHS is the only American healthcare system that goes to war. Uniformed providers and staff have deployed increasingly since the Vietnam War for military, humanitarian, and stability operations.[21] Since 2001 the MHS has provided continuous forward care for wounded, ill, and injured in the wars in the Middle East—the longest war fought by volunteers in this nation's history. Moving back and forth between the theater of war and home-based hospitals, professionals have frequently cared for the same patients they saw in combat when they returned to their duty stations in the United States.

The MHS serves 9.7 million beneficiaries directly through a system of Department of Defense (DoD) military medical treatment facilities (MTFs), including 56 hospitals and 365 clinics, as well as through civilian care purchased from private providers where uniformed care is unavailable. The MHS is the world's largest global integrated healthcare system, operating on every continent and employing roughly 58,000 civilians and 86,000 military personnel.[22] According to the Congressional Budget Office, in fiscal year 2013 the MHS budget exceeded $50 billion for the first time, accounting for more than 10% of the DoD budget. When combined with the Department of Veterans Affairs, the largest integrated healthcare system in the United States, the two federal organizations provide care to 14 million people at a cost of $104 billion, representing 11% of all federal healthcare costs.[23]

Healthcare costs in the MHS have increased fivefold since 2001.[23] As one government official said, "Today, we're on the path in the Department of Defense

to turn it into a benefits company that may occasionally kill a terrorist."[24] The rising healthcare cost of the MHS cannot be sustained. In the United States, the imperative to deliver quality care while cutting costs and eliminating system variation requires thoughtful and effective leadership.

Residents training in primary care programs today (family medicine, pediatrics, internal medicine) still provide the bulk of inpatient care coverage for children and adults, but they do so with one-fifth less training time since the 80-hour work week became the standard a decade ago (compared to the previously "standard" 100-hour work week). As the inpatient census drops in hospitals across the nation, trainees may have decreased overall patient experience because of diminished patient exposure. At the same time, the care of critically ill hospitalized patients has become more complex.[25] Designing safe systems to care for these complex patients with less experienced personnel requires leadership.

The days of all-knowing, "one-stop-shop" physicians, or physicians always available for house calls, are long past. Increasingly, patients in the hospital and in the clinic require multidisciplinary and inter-disciplinary care teams of professionals to assure the highest outcomes.[25] Healthcare in the 21st century involves a team of primary care physicians, specialists, nurses, psychologists, social workers, dentists, physical therapists, occupational therapists, and others. Leading these teams requires professionals who can seamlessly move back and forth from hierarchical to shared leadership roles as different therapists and providers take the lead during various aspects of patient care. Juggling to attain a balance between complex and dynamic care team scenarios requires well-developed leadership skills.

Finally, the challenges and scrutiny that face today's military healthcare leaders are only increasing. A recent lay publication noted that nearly one in five military healthcare leaders of major Army healthcare facilities in 2014 were either relieved or suspended.[26] Future military healthcare leaders must be acutely aware of the concepts of moral, ethical, and legal leadership and understand the terminology and impact of "toxic" leadership. They must be able to distinguish the differences among strategic, operational, and tactical leadership, and understand that tactical-level decisions can have strategic-level implications.

HISTORY OF LEADERSHIP

Interest in and discussion of leaders and leadership date back millennia, appearing in Homer's *Iliad*, the Old Testament, the New Testament, the Bhagavad Gita, and the Koran. These historical texts emphasized personal and physical characteristics and abilities of individual leaders. The empirical study of leadership began in the mid-20th century and was pioneered by Kurt Lewin, the "father" of experimental social psychology.[27] Lewin identified three different leadership styles—autocratic, laissez-faire, and democratic—and studied group dynamics among leaders and followers. During the latter half of the 20th century, there was an explosion of definitions, conceptualizations, and studies of leadership. With this increased attention to "what is leadership" came different views emphasizing *individual* characteristics and traits of the leader and the led; social interactions and group dynamics; processes and goals; situational influences; relevant knowledge and skills; and many other individual, interpersonal, and group distinctions.

In the last decades of the 20th century, *group processes* became the focus, highlighting how the leader and members of the group interact, including trans-actional (focusing on behaviors), transformational (focusing on motivations), servant (focusing on mission and followers), and authentic (focusing on leaders' communication) leadership. More recently, Heifetz[28] emphasized leadership through adaptive work versus technical work and the challenges of leading with and without authority. Kolditz[29] emphasized leadership in extreme situations. Pearce[30] emphasized the importance of self-awareness and expressions of one's emotions in concert with cognitions for leaders to communicate effectively. Day and Antonakis combined aspects of the individual leader, group processes, and leadership context in describing leadership as "an influencing process and its resultant outcomes that occurs between a leader and followers, and how this influencing process is explained by the leader's dispositional characteristics and behaviors, follower perceptions, leader attributes, and the context in which the influencing process takes place"[31] (see Day and Antonakis[32] and Northouse[33] for detailed discussions of leadership theories and styles).

ELEMENTS OF FOURCE-PITO

The definition of leadership offered in this chapter was developed to capture concepts and findings from extant leadership literature. As mentioned above, leadership is defined here as the enhancement of behaviors (actions), cognitions (thoughts and beliefs), and motivations (reasons for actions and thoughts)

to achieve goals that benefit individuals and groups. This wording includes the overlapping elements of psychology (behavior, cognition, motivations); the influence of leadership as an "enhancer" of these elements; and the end result of achieving or attaining goals (physical, psychological, and/or social) for the welfare of individuals or groups. The elements of the FourCe-PITO framework and their relevance to development and evaluation of leaders are described in more detail below.

Character

Krishna, Moses, Buddha, Jesus, Muhammad; Washington, Lincoln, FDR, Victoria, Thatcher; Gandhi, King, Mandela; Carnegie, Rockefeller, Gates; Newton, Darwin, Pasteur, Freud; Lovell, Letterman, Sternberg, Gihon, Rixey, Stokes, Carlton: individual leaders have emerged in belief systems, politics, business, science, and military medicine. These impressive individuals had powerful and admirable elements of character that helped them attain status and effectiveness as leaders.

Character includes all aspects of who we are physically, psychologically, and demographically. It includes personality, attributes, values, attitudes, appearance, aspirations, temperament, and so on. Everyone can become a leader, but we must know who we are and others' perceptions of who we are to become effective leaders. It is important to understand what aspects of self contribute to success as leaders and what aspects of self detract from effective leadership. Among the many aspects of character, self-confidence, humility, integrity, trustworthiness, responsibility, optimism, and empathy are particularly important to successful leadership.

Individual qualities of leaders have been an interest for as long as people have formed groups. The "savannah" hypothesis of leadership emphasized leader physical strength, stamina, and extraversion for small groups of human ancestors on the African plains.[34] Ancient literature is replete with examples of leader behavior with an emphasis on individual characteristics: those who are leaders because of position (eg, ex officio as king); physical size, strength, or looks; or individual personality traits or charisma. Homer's epic poems the *Iliad* and the *Odyssey*, written more than two millennia ago, present various models of leadership in the characters of Agamemnon (leader because he was the Greek king who led his countrymen against the Trojans), Achilles (leader because of his demigod warrior status), Ajax (leader because of his size and strength), Odysseus (leader because of his cunning), and Hector (leader because of his courage and dedication to his people).[35]

In the Old Testament, Joshua was challenged with the universal warrior's standard of personal leadership: "Be strong and courageous, do not tremble nor be afraid."[36] In *Beowulf* (an Anglo-Saxon poem, ca 1,000 CE), a young prince's behavior is recognized as affecting those who follow: "By praise-worthy actions must honor be got," or alternatively, "Behavior that's admired is the path to power among people everywhere."[37]

Early writings on leadership and social behavior focused on the leader and the leader's character. Carlyle wrote, "the history of what man has accomplished in this world, is at the bottom the History of the Great Men who have worked here."[38] Carlyle's emphasis on the character of the individual leader gave rise to the "great man" theory of leadership.

Genetic factors can impact "leader emergence." Twin studies of both genders suggest that up to 30% of the differences that lead to leadership roles could be the result of genetic factors,[39,40] leaving 70% to environment, education, training, and experience. There is not a significant correlation between intelligence and leader role occupancy, leader advancement, or motivation in children or adults. However, the extraversion temperament style is a predictor of leader emergence, along with the personality traits of conscientiousness, emotional stability, and openness to experience.[41] Children ages 2 to 16 years who are more accepting of new situations, are more extroverted as adolescents, and develop greater social skills are more frequently found to have work-related leadership responsibilities.[42] "Nature" plays a part in who becomes a leader, but "nurture" carries the day. Leadership can and should be taught and developed.

Leader traits as a reflection of temperament and personality also may affect the leader's dominant style. Lewin and Lippitt studied school children and identified three different leadership styles: authoritarian (autocratic), participative (democratic), and delegative (laissez-faire). Autocratic style tended to yield high productivity with low creativity. The democratic style participants were less productive but more creative, and the delegative style was the least productive of the three.[43] Although the three classic styles identified by Lewin,[43] as well as other styles (eg, authentic, servant, transactional, and transformational leadership), may come more "naturally" to some, all styles can be learned. Also, the context (including culture, stress, and time pressures) alters the effectiveness of various leadership styles, reflecting the overlap among the FourCe dimensions.

Weber introduced the term "charisma" (from the Greek "favored") to describe a leader who was imbued with special gifts that empowered him or her to bring about social change.[44] A substantial amount of

leader research has focused on charismatic, transformational leaders. According to Bass, these gifted men and women "by the power of their person have profound and extraordinary effects on their followers."[45] This transformational style has been presented as a contrast to the more "transactional style" characterized by "a process of exchange" that is similar to an economic contract and depends on "the good faith of the participants."[46] Charisma, recast as "idealized influence" by leadership researchers, is different than transactional leadership in that "transformational leaders shift goals of followers away from personal safety and security toward achievement, self-actualization, and the greater good."[47]

Business consultant and contemporary leadership scholar Jim Collins surveyed successful companies that he wrote about in his 2001 best-seller, *Good to Great*. His research team concluded that the companies that exceeded their peers' economic performance were led consistently by what he termed "Level 5" leaders. These leaders demonstrated traits and behaviors that he characterized as "a paradoxical mix of personal humility and professional will."[48]

It is clear that a leader's character, including personality (with emphasis on confidence, trustworthiness, and resilience/hardiness) and emotional intelligence affect leadership effectiveness. Emotional intelligence, discussed below in more detail under "Competence," can be learned and developed, even though there are clear differences among individuals. It includes essential aspects of "relationship management," and is a strong predictor of successful leadership. Because leadership effectiveness relies on interactions with followers, leader competence and the followers' response to the leader are critical.

Competence

Competence refers to abilities, skills, and knowledge relevant to leadership that transcend various roles, professions, and responsibilities. Competence also refers to the abilities, skills, and knowledge *specific* to particular roles, professions, and responsibilities of relevance to a leadership position. Lack of individual professional and technical competence creates additional leadership challenges, and leaders should have a working understanding of the professional and technical competence specific to the role, but transcendent leadership competence is particularly important.

Effective leadership competence that transcends particular leadership roles includes management skills, problem-solving skills, emotional intelligence, and ability to influence and inspire followers. It is crucial for leaders to develop excellent problem analysis, critical thinking, and decision-making competencies. To develop these skills requires awareness of cognitive biases and various heuristics that affect perception of information. It is useful to be knowledgeable about principles of social psychology and group dynamics that influence interpersonal relationships and willingness to express ideas.[49,50] Thoughtful and critical decision-making that encourages and considers broad input from the members of the group requires practice, feedback, and more practice.

The extent to which a leader needs management skills depends on the context, including the organization and culture. According to management expert Peter Drucker, both the military and healthcare industries require people who know how to "get the right things done." So mastering management is necessary, but not sufficient, to be an excellent military healthcare leader. For example, military medical leadership requires competent management of personnel. Drucker writes, "Management is about human beings. Its task is to make people capable of joint performance, to make their strengths effective and their weaknesses irrelevant."[51] Other important management skills address time management, organization, and optimal use of resources (including people, materials, and finances). Zaleznik[52] argued that managers and leaders are different types of people. Kotter[53] made the case that managers and leaders serve different but complementary roles. More recently, Watkins argued that excellent managers can become great leaders by changing from "specialist to generalist," "analyst to integrator," "tactician to strategist," "bricklayer to architect," and "warrior to diplomat."[54] It seems that managers can learn to be leaders, but leadership competence goes beyond management.

Table 4-1 presents a comparison of management and leadership. Note that management focuses on affecting behaviors of followers, whereas leadership affects behaviors, cognitions, and motivations. Also note that management emphasizes accountability and productivity, whereas leadership is aspirational and inspirational.

Leadership is largely a matter of influence. Influence is tied to perception, and perception is generally affected by emotion.[55] One of the key competencies that must be further developed in leaders is emotional intelligence. This psychological construct was identified in the mid to late 20th century as psychologists recognized that the traditional intelligence quotient (IQ), which focuses on verbal and quantitative abilities, was an incomplete assessment of cognitive and other abilities.[56–58] The concept of emotional intelligence (or EQ) gained attention and popularity following Goleman's book on the subject.[59] Essentially, EQ refers to the ability to accurately perceive emotions in oneself

TABLE 4-1

COMPARISON OF MANAGEMENT AND LEADERSHIP

	Management	Leadership
Behaviors	X	X
Cognitions		X
Motivations		X
Vision	Follow	Set
Emphases	Administration and oversight Efficiency Productivity	Motivation and inspiration Innovation Creativity

(self-awareness), to manage one's own emotions (self-regulation), to accurately perceive and understand emotions of others (empathy), and to use that understanding to optimize relationships (social skills). EQ has been described by models that emphasize traits (making it an aspect of character), abilities (making it an aspect of competence), and both traits and abilities. Certainly individuals have different levels of EQ from an early age, but there are various styles of EQ that can be learned,[60] and EQ can be taught and developed. Therefore, EQ is categorized here as a competence, but overlapping with character.

Effective, inspirational, and transformative leaders are thought to be particularly good at creating positive emotional reactions in followers.[55] Research by the Hay-McBer group examined the impact of emotional intelligence on individual leadership behaviors and organizational performance. In their research, leaders with greater emotional intelligence competence (self-awareness, self-management, empathy, relationship management) were more influential than peers who lacked these strengths. Business units led by men and women with high marks in emotional intelligence financially outperformed units led by leaders without this competence by 20%, and nearly 90% of the leaders with greater emotional intelligence placed in the top third for annual salary bonuses based on unit performance.[61] Leadership styles reflecting emotional competence had a reproducible effect on organizational climate, and leaders who were able to manifest different styles depending on the individual needs of the followers were considered most effective as measured by business unit performance.[61]

Emotional intelligence is an important feature of the relationship between the leader and follower. It has been extensively studied and has contributed to the understanding of the "leader-member exchange" school of leadership. This relational approach posits that "when managers and subordinates have good, trusting, open, and supportive relationships, they report more positive attitudinal and behavioral outcomes, and workplace and leadership dynamics are more effective."[62] This "constructionist" approach to leadership suggests that relationships are "the generative source of leadership," so it is little surprise that ability to establish strong relationships in accordance with high emotional intelligence should predict leader effectiveness in this model.[62] (See Goleman[59] and Goleman, Boyatzis, and McKee[63] for detailed discussions of EQ, how it relates to leadership, and how to develop EQ.)

A related competence of leadership is the ability to inclusively relate to others. Inclusive leadership rests on a foundation of listening, demonstrating respect for and willingness to involve others on the part of the leader. This point is consistent with the observation of the 24th century BCE Egyptian philosopher Ptah-hotep, who understood the importance of leader-listening: "Those who must listen to the pleas and cries of their people should do so patiently, because the people want attention to what they say even more than the accomplishing for which they came."[62] It also highlights the overlap between leader competence and communication.

As the foundation of a relationship, attentive, "active" listening is the place to begin honing leader competence. Listening skills affect the leader's competence across a range of leader tasks: the dynamics of running meetings, strategic planning, mentoring, coaching, and leader succession planning. The information gathered by leaders through strong relationships with the group and excellent communication is used to make informed, thoughtful, and appropriate decisions relevant to the group and the members of the group.

Leadership is characterized by strong partner relationships between leader and followers. "The role of the leaders in these processes is to provide environments that are inclusive, trusting and supportive to followers; the role of the followers is to be active partners in the leadership process."[62] Emotional intelligence, interpersonal management, and decision-making occur in a social context that is affected by the unit's task, its organization, and its culture. Therefore, the effective leader must also be facile at leading in a specific organizational or situational context.

Context

Context includes the physical, psychological, social, cultural, and economic environment; various situations; and stress that a leader may face. According

to Bennis, "context always counts when it comes to leadership."[64] Kellerman also emphasizes the importance of considering context in optimal leadership.[51] Context is particularly important in military medical leadership because of the extreme and varied situations where leadership is required (physically, psychologically, and socially). Military healthcare leaders must be able to perform in volatile, uncertain, complex, and ambiguous ("VUCA") environments; in other words, leaders must adapt to context.[65]

With regard to leadership, context also includes characteristics that are unique to the group of the subordinates being led; the nature of the subordinates' tasks; the situation in which the leader and subordinates operate; and characteristics of the organization where the leadership occurs.[66] Fiedler first proposed a model of leadership that took into account both the leader's orientation (character and leader competence) and the situation (context, subordinates, task, organization). Orientation reflects "an internal state intrinsic to the leader" that is affected by subordinates and the task to be accomplished (situation).[67]

Watkins has studied and written about business units and their impact on leader context, categorizing different organizations as start-ups, turnarounds, or organizations undergoing accelerated growth, realignment, or sustained success. He contends that leaders who fail in new positions do so when they "rely on the skills and strategies that worked for them in the past" instead of taking the new workplace context into consideration when approaching the required leadership approach.[68] Research has supported Watkins's assertions.[66]

The organization's culture includes a set of repeated behaviors motivated by thoughts (cognitions) and feelings (motivations/emotions) that are based in collective belief developed over a long period. These beliefs are reinforced by symbols, artifacts, and rituals, and affect the individuals as they mature and grow within the culture.[69] The consideration of culture is relevant to uniformed leaders operating across different service cultures. It is critical to understand the different service cultures in order to avoid misunderstandings and misinterpretations, including chains of command, preferred uniforms, and appropriate ways to address colleagues, superiors, and subordinates.

Each of the uniformed services has a well-defined, discernible culture, as Builder discusses in *The Masks of War*. Builder summarizes the different services' primary cultural foundations: Navy, independent command at sea; Air Force, devotion to technology; and Army, service to the country as a citizen-soldier.[70] These different cultures affect the way business is conducted in each service and the way the leaders learn to conduct

business. This pattern of repeated behaviors can lead to leadership conflict when the leader attempts to operate in the context of one service culture using learned behaviors from another.[71]

Leadership context must take into consideration nuances of the era as well as the organization. Generational sociologists Strauss and Howe have articulated the differences between the "generations" represented in today's military: baby boomers (born 1940–1960), generation X (born 1960–1980), and millennials (born 1980–2000).[72] For millennials as leaders and as followers, challenges and opportunities of digital and social media must be considered and addressed.[73]

Other individual differences, including gender, should be considered as an aspect of context that may affect leader-follower perceptions, relations, and effectiveness. In 1996, the number of women in the United States with bachelor's degrees exceeded the number of men, and in 2010 for the first time more women than men earned master's degrees.[74] Women have become major players in many professions, including health services.[75] Gender bias as well as any ethnic, racial, and other biases must be continually addressed for leaders to succeed. (For further discussion of gender in leadership see Ayman and Korabik[76]; Cheung and Halpern[77]; and Eklund, Barry, and Grunberg.[78])

In addition to organizational culture, other cultural differences must be considered for effective leadership. US military medicine is practiced in every part of the globe, and this practice is an essential part of "soft power" to support national security and provide humanitarian service throughout the world. Therefore, it is imperative to recognize that leadership must consider every aspect of cultural context, including gender, age, race, ethnicity, religion, traditions, verbal language, body language, eye contact, and interpersonal space.

Leadership in crisis situations (eg, life-threatening, resource-limited, time-urgent) presents a unique set of contextual challenges, requiring different considerations that may be uniquely important to military medical leaders. "In-extremis leadership," according to Kolditz, requires focus on the external environment to make decisions about appropriate actions. Moreover, leaders must share the same risks as subordinates, and must be sufficiently competent to inspire trust, loyalty, hope, and confidence in subordinates. Kolditz cites examples of combat leadership to illustrate how to adjust to extreme conditions and context.[29]

Leaders respond to context in multiple ways. They learn to have situational awareness, change behaviors to suit the situation, or manage and alter the situation. This responsive adaptation has been proposed by Ayman and Adams as representing Sternberg's

model of "triarchic" intelligence: the individual's "purposive adaptation to, selection of and shaping of the real-world environment relevant to one's life and abilities."[66]

Additionally, leaders must consider how perceptions, challenges, and behaviors are altered in the context of stress. A leader's dominant responses become more marked or prominent under stress. If the dominant response is to do something correctly, then performance improves. But if the dominant response is to do something incorrectly, performance deteriorates.[79,80] Decision-making often relies on automatic or dominant responses in the context of stress. In addition, people tend to yield more readily to authority when under stress.[28] Therefore, the leader—whether right or wrong—can become more influential in stressful situations.

Research has indicated that stress is related to performance and hedonics by an inverse U-shaped function, so that performance and mood are optimal at moderate stress, but poorer at minimal or extreme stress.[81] When leadership occurs under stress (as it often does in military medical practice, whether in the emergency department, operating theater, or field, because of harsh environmental conditions or combat), leader authority is particularly influential and dominant responses (good or bad) of leaders and followers emerge.

Military medicine occurs in broad and varied contexts. For teams and groups to function effectively in all contexts, clear and accurate transmission of information is critical. Communication, therefore, is the fourth critical domain of leadership (see Chapter 11, Military Communication, for a broader discussion of communication relevant to military medicine).

Communication

Effective communication, a critical element in most leadership models, takes into consideration the leader's narrative, vision for the group or organization, and style of communication. Rhetoric is the communication of this narrative in person, electronically, in video, or in writing. It is important to recognize that communication involves sending and receiving, verbally (oral and written words) and nonverbally (including tone of voice, intonation, volume, body language, facial expressions, and gestures). "Reading" and "receiving" information from followers' faces, body language, and moods are as important as listening to their verbal input. "Sending" information nonverbally through facial expression, gesture, and touch are as important as clearly expressed words. Tone of voice, pitch, rhythm, timbre, and volume also are important in oral communication. All forms of written messages (eg, memos, directives, policy statements, emails, tweets, instant messaging) must be carefully constructed for clarity. They should convey rational and well-reasoned decision-making, consideration of input, and respect for others. Verbal and nonverbal communication must be in synchrony to be effective and trustworthy.

Communication requires planning and practice. It also involves awareness of applicable principles and techniques. It is important for the communicator to be credible, trustworthy, and knowledgeable about the information conveyed. Communications that consider primacy (information that is presented first), recency (information that is presented last), repetition, clarity, and relevance of information to the audience are most effective. Point-counterpoint (ie, addressing opposing opinions), memorable imagery and anecdotes, and consistency of nonverbal expression and verbal content all add to persuasive communication.[82–85]

Influential leaders communicate in appropriate, emotionally modulated ways, packaging their messages so that they are easily understood, able to captivate audiences, and adjusted to the emotional needs of followers (eg, when to fire them up, when to calm them down; when to be empathetic and when to be authoritarian). Effective leaders are good storytellers. They know how to use voice and body gestures and are masters of rhetoric. In a discussion of charismatic leadership, Antonakis identified Aristotle's work *Rhetoric* as a summary of the importance of communication to leadership.[47] It also is apparent that Aristotle appreciated the importance of character, competence, and context to communication. With regard to character:

> The first kind (of persuasion) depends on the personal character of the speaker . . . Persuasion is achieved by the speaker's personal character when the speech is so spoken as to make us think him credible. We believe good men more fully and more readily than others: this is true generally whatever the question is, and absolutely true where exact certainty is impossible and opinions are divided.
>
> . . .
>
> It is not true, as some writers assume in their treatises on rhetoric, that the personal goodness revealed by the speaker contributes nothing to his power of persuasion; on the contrary, his character may almost be called the most effective means of persuasion he possesses.[86]

Aristotle's opinions suggest cognizance of emotional intelligence by considering the listeners' feelings:

Persuasion may come through the hearers, when the speech stirs their emotions. Our judgments when we are pleased and friendly are not the same as when we are pained and hostile.[86]

Aristotle underscores the importance of context by addressing the communication within the "case in question":

Persuasion is effected through the speech itself when we have proved a truth or an apparent truth by means of the persuasive arguments suitable to the case in question.[86]

Effective communication is a hallmark of successful leadership. The message is a crucial aspect of the leader's rhetoric. In military medicine, messages are compelling and essential. Leaders advise about life and death and how to sustain health and avoid injury and illness; recover from injury and illness; and prepare for and deal with death. These communications must be clear, unambiguous, sensitive, compassionate, and respectful.

Retired Air Force General Johnnie Jumper tells the story of walking through a crowd of fresh recruits recently graduated from basic training. He asked a young graduate how she felt. "Sir," she told him, "for the first time in my life, I feel as though I am a part of something bigger than myself." Leaders must learn to tell the story in ways that will be understood and embraced, to tell what Sinek would call a story about "why."[87] Pearce emphasizes that leaders must understand and express their emotions with their message to truly communicate authentically and to optimize influence.[30]

Frankl believed that "man's search for meaning is the primary motivation of his life." He proposed that "at any moment, man must decide, for better or worse, what will be the monument of his existence."[88] Most military medical leaders share the same sense of purpose in caring for warriors and their families and training the next generations of providers. This sense of purpose can be conveyed in ways to inspire and strengthen others.

Military service provides meaning and significance for service members and the healthcare professionals who care for them. Veterans often miss the camaraderie after they leave the military. The basis of this camaraderie is unity around a single purpose. Service members are drawn to this message of unity of purpose, and they miss it when it is gone.

Sonnenfeld and Ward, writing about personal leadership in crises, observed that "the most common theme in the research on resilience is the necessity of a core sense of meaning in the person's life."[89] The story that sustains service members, their families, and the professionals who care for them through the challenges of severe illnesses and injuries, deployments and separation, and the pressures of practice and living in a "glass bowl" is the narrative of being part of something bigger than themselves. The military medical leader's understanding of that narrative, genuine belief in it, and ability to communicate this sense of meaning verbally and nonverbally may be the single most important contribution to the group and to the organization.

PITO

The four domains (or four Cs) of leadership should be considered, developed, and evaluated (by each leader and by others) across the four psychological, social psychological, and sociological levels—personal, interpersonal, team, and organizational—to develop outstanding leadership.[13,90] Combination of the FourCe domains with the PITO levels creates a powerful

TABLE 4-2

SAMPLE ELEMENTS OF FOURCE-PITO FRAMEWORK

	Character (Ch)	Competence (Cp)	Context (Cx)	Communication (Cm)
Personal	Identify core values	Develop self-awareness	Understand service cultures	Communicate effectively
Interpersonal	Share core values	Enhance emotional intelligence	Work in dyads	Communicate difficult information
Team	Build team values	Understand group dynamics	Work in small groups	Communicate with team under stress
Organizational	Inspire core values in large groups	Learn strategic vision	Understand various cultures	Communicate to large groups

framework to guide leadership education and development as well as self-evaluation and evaluation by others, including peers, subordinates, and supervisors.

Figure 4-1 presents the FourCe-PITO framework now used by the Uniformed Services University of the Health Sciences Leadership Education and Development Program to identify elements of leadership training, needs for research and scholarship, and ways to assess military leadership. Figure 4-2 presents a more detailed version of this framework, listing examples of key elements of each of the four Cs. Figure 4-3 and Table 4-2 present more granular versions of this framework with examples of leadership goals for each of the four Cs at each of the four PITO levels. Figure 4-4 presents an abbreviated version of the FourCe-PITO framework.
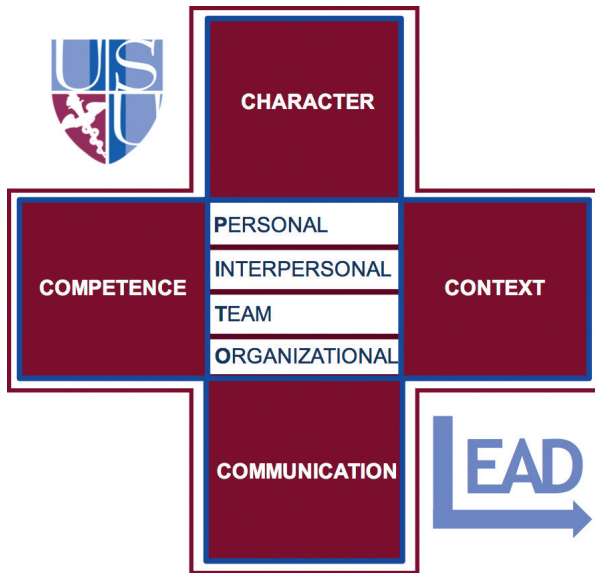

Figure 4-1. FourCe-PITO framework.

Figure 4-2. Expanded FourCe-PITO framework.

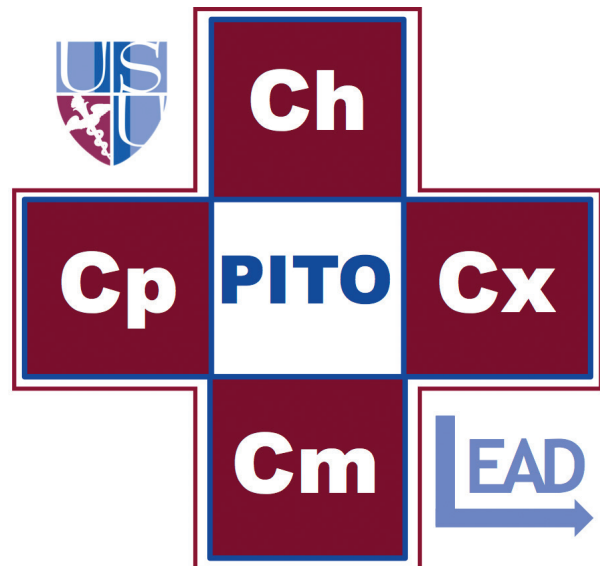**Figure 4-3**. Expanded FourCe-PITO framework with examples of lessons.

Figure 4-4. Abbreviated FourCe-PITO framework.

HOW TO USE THE FOURCE-PITO FRAMEWORK

The FourCe-PITO leadership framework offered in this chapter can be used to develop and evaluate oneself and others as leaders. A leader can reflect upon and list strengths and gaps in each of the 16 cells of the FourCe-PITO matrix. In addition, a leader can ask others (including peers, subordinates, and supervisors) to do the same exercise for a full or "360°" assessment. Identified gaps, places to improve, and ways to refine elements of the model can be addressed with self-study and reflective writing, interpersonal discussions with peers and coaches, team-building exercises, and other leadership development experiences that are available via in-person workshops as well as online courses and exercises. Evaluation of leadership performance using the FourCe-PITO framework can also be done in hospital, clinic, field, and other settings.

SUMMARY

Effective military medical leadership is important for the successful, safe, and efficient delivery of healthcare, prevention, treatment, and rehabilitation services. Leadership is *the enhancement of behaviors (actions), cognitions (thoughts and beliefs), and motivations (reasons for actions and thoughts) to achieve goals that benefit individuals and groups.*

The **four Cs of leadership** are character, competence, context, and communication. **Character** includes confidence, humility, responsibility, integrity, trustworthiness, optimism, empathy, and service values (for military medical leadership). **Competence** includes transcendent leadership knowledge and skills and sufficient expertise determined by the role and specialty. **Context** includes physical, psychological, social, cultural, and economic environments; various situations; and stress. **Communication** refers to sending and receiving information, verbally and nonverbally. The psychological, social psychological, and sociological levels of interaction relevant to leadership are **personal** (the individual), **interpersonal** (dyads), **team** (small teams), and **organizational** (large groups). The **FourCe-PITO framework** provides a guide for military medical leadership education development and evaluation.

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