LEADERSHIP BASICS FOR CLINICAL LABORATORY PROFESSIONALS

COMMITTEE ON CLINICAL LABORATORY MANAGEMENT

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PREFACE

Committee on Clinical Laboratory Management (C-CLM) aims through this manual to support clinical laboratory professionals to discover their leadership strengths and see how developing and applying these principles can help them reach the highest summits in work. This manual also complements the C-CLM *Clinical Laboratory Leadership Certificate Program* and is part of the required reading list. We promote six leadership strengths towards business and personal success including demonstrating social intelligence; adopting a flexible leadership style; empowering others; development of trust; managing risk in an environment of uncertainty, and seeing the big picture. Those strengths provide a valuable model in the clinical laboratory workplace, whether one is already in a leadership position or aspiring to get there.

Each chapter presents the most important facts and concepts in that subject area. The chapters address topics such as defining the laboratory medicine leaders, effective leadership styles, skills/qualities of a good leader, the leader as visionary and motivator, work culture, and ethics in leadership. In addition, the assessment tools provided in the Appendices section are designed to provide the reader's insight towards the selection of the best leadership model, when starting to manage new people and selecting which leadership style to be used and discover the motivation level of persons under his/her authority.

All contributing authors have reflected on their own professional excellence in their contributed chapters, being educators and outstanding professionals in the laboratory medicine field.

We wish to thank the authors for their willingness to contribute to this monograph and hope that the information contained in the chapters is both educational and of practical use to those who lead and engage in management roles.

Please send your feedback to this manual at the following email address: sedefyenice@gmail.com.

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Edward RANDELL

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LIST OF ACRONYMS

AACC	**American Association for Clinical Chemistry**
C-CLM	**Committee on Clinical Laboratory Management**
CE	**Conformité Européene or European Conformity**
CEN	**Comité Européen de Normalisation**
CEO	**Chief Executive Officer**
CLSI	**Clinical Laboratory Standards Institute**
CPD	**Continuing Professional Development**
CME	**Continuing Medical Education**
DIN	**Deutsches Institut für Normung**
EFQM	**European Foundation for Quality Management**
FT4	**Free thyroxine**
IFBLS	**International Federation of Biomedical Laboratory Science**
IFCC	**International Federation of Clinical Chemistry and Laboratory Medicine**
ISO	**International Organization for Standardization**
IQC	**Internal Quality Control**
IVD	**In vitro diagnostics**
PDCA	**Plan-Do-Check-Act**
QA	**Quality Assurance**
QC	**Quality Control**
QM	**Quality Management**
QMS	**Quality Management System(s)**
SOP	**Standard Operating Procedure**
TSH	**Thyroid Stimulating Hormone**
WHO	**World Health Organization**

CHAPTER 1

Overview

EDWARD RANDELL

INTRODUCTION

"Leadership is an action, not a position."

Donald McGannon (A broadcasting executive during the early years of Television)

One of the greatest challenges to growth and improvement and operational excellence in any organization is the availability of good leadership. Leaders play the primary role in establishing workplace culture and impact the quality and rate at which the laboratory progresses over time. Good leaders inspire others to find self-motivation, greater creativity, and productivity and create team spirit. In spite of the importance of good leadership to the success of any organization, relatively few in leadership roles have received training and exposure on how to become an effective and good leader. For many laboratory professionals leadership skills and style develop out of mentoring by senior scientists, managers, and directors within the workplace. While there are clear benefits from sound mentoring, bad habits and ineffective behaviors and strategies can also be adopted. Moreover, good mentoring alone is insufficient to produce good leadership skills, thus, calling on the need for structured training, and guidance. This monograph addresses this gap by providing instructional materials to help the leaders in laboratory medicine toward more effective leadership strategies and practices.

While the qualities of good leadership transcend many different disciplines of business and human interaction, the environment and problems encountered in the clinical laboratory setting are unique, making good leadership skills, fine-tuned to the specific challenges of laboratory medicine, even more important. Unique to health care, and in contrast to other areas of business is the primary focus on the wellbeing, the expectations and the safety of the patient, and then secondarily the funder, the health organization, or government. A particular challenge to the leadership is the *in vitro* situation of Clinical Pathology which carries medical consequences for the patient without having the direct personal patient contact such as in most other areas in medicine. But just as in other areas of health care, there is a need for a careful balancing of productivity, cost control, and adherence to the ethical requirements surrounding provision of quality service. Often it is even more challenging for a leader in inspiring other laboratory staff toward a common vision and purpose, to avoid the pitfalls of one's lack of self-awareness. This monograph addresses such challenges as it describes the components of leadership in laboratory medicine.

Good leadership in laboratory medicine is comprised of many factors. **Figure 1.1** characterizes the clinical laboratory leader by five roles. Good leadership is characterized by competency in practice, involvement in quality management (QM), being an effective problem solver and strategist, one who pursues improvement and excellence in service, and promotes the development and sustainability of this service. Such leaders are competent in working with other experts in laboratory science, patient safety, technology, epidemiology, informatics, communications, and the public and other areas of healthcare. Leadership in laboratory medicine is also concerned with competency in a specialty area and being able to recognize new and beneficial developments that can be translated in the local environment toward overall improvement in patient care. As a scientist, the laboratory leader is meticulous in drawing attention to detail and finds himself/herself on the cutting edge of new development and reorganization and is also expert in the operations of the organization and apt to perform investigations towards improving service quality and efficiency, but also to conduct applied laboratory research to address health problems. The laboratory leader is a lifetime learner, always learning through regular attendance and participation in seminars, journal reading, attending annual professional conferences, and presenting the findings of their own investigations to the scrutiny of and towards growth and development of the field. The leader is actively engaged in the laboratory quality management system (QMS). As a champion of quality of care and patient safety, the laboratory leader organizes comprehensive laboratory safety and risk assessments and ensures such activities are familiar and ingrained in the local workplace culture. The laboratory leader is also a promoter of the monitoring and evaluation of laboratory services by regularly attending meetings and events influencing and impacting laboratory service delivery, promoting more effective integration and application of the laboratory services to patient care in medical decision making and outcomes. Chapter 2 defines for us in greater detail the components of Leadership.

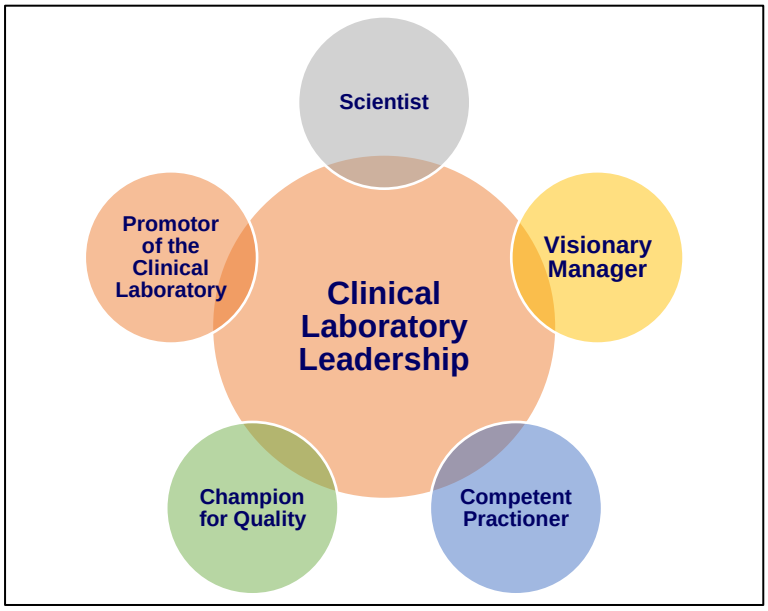

Figure 1.1 Roles of the Clinical Laboratory Leader

Not all leaders are the same. An important step towards excellence in leadership is recognizing your leadership style compared to the kind of leader you wish to be (**Figure 1.2**). Chapter 2 describes the styles of effective leadership. Several key attributes accompany effective leadership. These include being effective at managing people, having a clear vision, and having a keen self-awareness and sound ethics, being masters of self (1) (**Figure 1.3**). According to Grace Murray Hooper, a famous American computer scientist and Admiral in the US Navy, *"You manage things; you lead people."* Although leadership and management are often used interchangeably they are different. The leader's role involves influencing change in opinions and attitudes of others towards the common goal. The role of manager focuses on bringing necessary people, processes, and other resources in place to achieve the goal. Leaders in laboratory medicine are often active in both areas of management and leadership.

Charismatic	Charming and creates a comfortable and friendly atmosphere giving staff the notion of being listened to.
Participative	Leverages the collective mind of the group to accomplish goals.
Situational	Skilled at adapting to and leading through constraints.
Transactional	Establishes a clear chain of command and motivates through punishment and reward.
Transformational	Inspirational and empowers others leveraging their beliefs and personal strengths.
Servant	Servants to others, inspiring to action versus by compulsion.
Quiet	Do what needs to be done, and inspiring others toward the same.

Figure 1.2 Styles of Leadership (*Discussed in Chapter 2*).

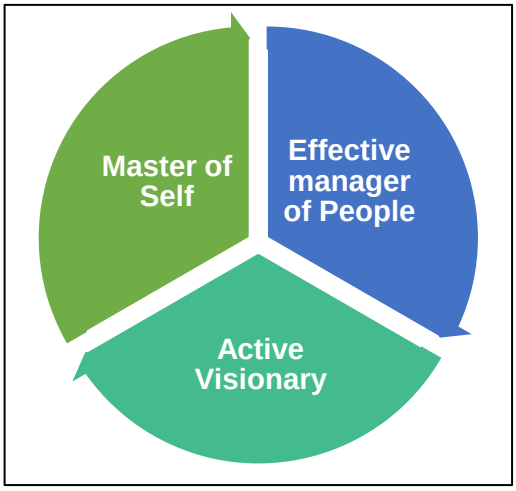

Figure 1.3 Key Attributes of Leadership

According to American Politician and former governor of the US state of Colorado. Bill Owens, "*True leadership lies in guiding others to success-in ensuring that everyone is performing at their best, doing the work they are pledged to do and doing it well.*" Leaders must be effective managers of people. This involves supporting staff towards putting forward their best without resorting to micromanaging. This also involves holding all accountable for their actions. As a manager of people, effective leaders realize the difference between being productive and being busy but inspires others to efficiency and productivity. Chapter 3 addresses the key skills and qualities that accompany good clinical laboratory leadership.

According to author, speaker, and leader, John Maxwell, *"A leader is one who knows the way, goes the way, and shows the way."* Good leaders have a clear vision of their organization's potential. Leadership communicates this with employees, and demonstrate it through actions and decisions. This also involves clear communication of expectations and standards that align with the goals of the organization. Chapter 5 describes the importance of the leader as a visionary and motivator. These leadership roles are also essential to inspiring and leading laboratory staff through change. The topic of change management is dealt with in greater detail in the Leadership Training Certificate Program.

According to Dee Ward Hock, founder and former Chief Executive Officer (CEO) of the Visa Credit Card Association, "*Control is not leadership; management is not leadership; leadership is leadership. If you seek to lead, invest at least 50 percent of your time in leading yourself--your own purpose, ethics, principles, motivation, and conduct. Invest at least 20 percent leading those with authority over you and 15 percent leading your peers.*" Effective leadership requires much personal introspection and self-awareness, being a master of self. Careful reflection on one's activities is a key to improving oneself and making every event and day count. It is the leader's job to ensure that all activities are directed towards a common goal. However, hidden personal agendas of leaders can sabotage even the most inspiring vision. Chapter 6 describes the importance of a strong ethical foundation in leadership and discusses how this is essential to improving laboratory culture and its services overall. Ethical leadership comprises not only what is said and done, but entails the personal character, values, and principles.

OBJECTIVES

Becoming a good laboratory leader requires a focus on developing knowledge, values, character, and skills consistent with effective leadership. The following chapters are offered to laboratory professionals who are in leadership positions and who aspire to such a position in the future toward success in your leadership role but also to improve your own job satisfaction and inspire those who work with you. Through improving leadership effectiveness, organizational efficiency is also improved leading to improved patient outcomes and satisfaction with service; employee contentment and motivation towards accomplishing the laboratory

missions; and an overall increase in the performance of the laboratory.

The following chapters will focus on developing and improving leadership skills by:

- Describing the model laboratory medicine leader (Chapter 2)
- Identifying effective leadership styles (Chapter 3)
- Describing the qualities and skills of good leaders in the clinical laboratory (Chapter 3)
- Discussion on the use of standards to clinical laboratory leaders (Chapter 4)
- Describing the role of a laboratory leader as visionary and motivator (Chapter 5)
- Describing the importance of ethical leadership in establishing a quality oriented and patient-focused workplace culture (Chapter 6)

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CHAPTER 2

Effective Leadership Styles

AYE AYE KHINE-WAMONO

LEARNING OBJECTIVES

1. Describe the roles and responsibilities of a laboratory leader
2. Explain what is meant by good laboratory leadership
3. To discriminate leadership from management, power, and authority
4. To describe different leadership styles
5. To apply the definition of leadership, leadership styles and qualities in the medical laboratory environment

KEY QUESTIONS

- What is meant by laboratory leader?
- What are the roles and responsibilities of medical laboratory staff members at respective layers of the organizational structure?
- What does leadership mean to you?
- In a managerial position at the medical laboratory, what are the essential differences that define leadership from supervision and management?
- In your opinion, are leaders born or made? Support your answer.
- What are the traits and attributes (qualities) that a good leader is born with or can develop into?
- What is the required skill set of a good leader?
- What are the common leadership styles? Demonstrate your understanding with examples.
- How can you apply some of these styles or a mixture of two or more in your daily work at the medical laboratory?

INTRODUCTION

Leadership ability is characterized in different ways. Some understand leadership by the ability to guide, direct or facilitate people (followers) in achieving a common goal.

Others add to this the skill of adapting to different work settings to facilitate and empower others to contribute creatively in reaching goals or in solving problems. But in spite of different definitions, an essential commonality of leadership is the ability to influence others towards achieving common goals (1). To lead is, therefore, to influence people and consequently to move others toward buy-in to a shared vision. To lead also involves facilitating the creation of leadership qualities in those who follow.

The key attributes and principles constituting good leadership show considerable similarity across all industries across the globe, although the context and specific challenges faced by each may differ. Key attributes of good leadership were indicated in Chapter 1 and included self-mastery, effective management of others, and being an active visionary. These will be discussed in further detail in this chapter. Firstly, good leadership is built on having a vision and leading clearly and strongly by mandate arising from that vision. The primary mandate of laboratory business and services is related to assuring and improving patient wellbeing in a safe manner. This mandate arises from the vision and missions of the medical laboratory and the organization it is a part of, and consequently determines and influences the roles and responsibilities of both the laboratory leader and staff.

The goal of ensuring patient safety does not come without challenges. According to Epner (2), the most frequent challenge facing laboratory leaders is the propensity towards transforming the laboratory into a factory-like environment, driven by the need for increased productivity at lower cost. This paradigm can present challenges as the main goal of healthcare is to improve patient outcomes. The laboratory leader and staff are, therefore, faced with a persistent dilemma between its mandate to provide high-quality patient results, acceptable productivity, and the need to assure the financial survival of the service. Amidst these challenges, the laboratory director or manager play a leading role in balancing policies, decisions, and actions to meet the demands of all three aspects at every moment of service delivery. Concerted and coherent effort of all staff members is needed in this regard, and not that of laboratory leadership alone. Attending to these challenges is what defines the effectual working of a good laboratory leader.

When the entire laboratory organization operates from its common goal towards better patient care and safety, this is an indication that good leadership is at work. Alignment of staff members' actions with this vision must be maintained by efforts that go beyond the mere articulation of the vision - leaders must demonstrate their commitment to the vision through action and decision. This means considering the potential impact of decisions on their staff. This added perspective requires careful reflection on the part of the leader and encouragement of staff members to openly express their diverse points of view. This means building consensus, and not mere obedience to leadership directives.

Apart from being a visionary and championing this vision, laboratory leadership involves self-mastery through self-awareness. Personal blind-spots can lead to

failure as a leader. These blind-spots arise from an exaggerated sense of self-importance, hidden personal agendas, and lead to a lack of confidence by subordinates (1). Self-awareness and self-mastery by leaders are essential to recognizing behaviors that can undermine and even sabotage the vision set out. It is important to be aware of one's own biases and flaws and take steps to avoid their trappings. Consider the situation where an employee expresses something that appears to conflict with the expressed direction of the leader. A non-self-aware and ill-tempered leader may assume the worst of intentions by the employee, while a more controlled response might include consideration of the possibility of misunderstanding, or give some legitimacy to differences in opinions or assumptions. In connection with this, author, speaker, and businessman Stephen Covey in his book (The Seven Habits of Highly Effective People) advises to "*Seek first to understand and then to be understood*" (3). This requires the leader to be self-aware and to execute self-control in a response. A good leader is a good listener, and careful listening promotes a clearer understanding. In a nutshell, the laboratory leaders lead by the authority associated with their position but the support of those they lead is critical to accomplishing the goals and vision of the laboratory organization. This leads to the third attribute of good leadership - being an effective manager of people. The fruit borne out of effective people management is the enthusiastic support of staff members which in turn enhances the leader's motivation and contributes towards the success of the common vision communicated by leadership. By defining and driving toward the vision of better patient care and safety and making this resonate with employees; by being aware of one's intentional and unintentional biases or blind spots; by mastering self; and by providing effective management, one is on the road to becoming a successful clinical laboratory leader.

ROLES AND RESPONSIBILITIES IN THE LABORATORY

The organizational structure of a medical laboratory follows a typical hierarchal scheme consisting of management, technical and support staff divisions. With possible variations across the organizations, **Figure 2.1** depicts the prototypic medical laboratory business structure.

The laboratory total testing process is typically sub-divided into the sequential phases: pre-pre-analytical, pre-analytical, analytical, post-analytical and post-post analytical phases. **Table 2.1** shows a summary of the different roles in the total testing process. Pre-pre analytical phase encompasses test selection by the clinician and the test ordering process. This is followed by the pre-analytical phase which involves the collection of the specimen, its storage, and transportation to the laboratory, as well as, documentation of its receipt, sorting, and other processing for testing. The analytical phase includes sample testing along with any quality assurance (QA) procedures. The post-analytical phase involves result verification and reporting, whilst the post-post analytical phase refers to result interpretation, recommendations for any follow-up testing, printing or electronic delivery of results (4).

If leadership is defined by accountability for setting directions and goals, laboratory leadership must be aligned with the organization's vision towards a high standard of performance. This translates as high-quality results within an acceptable turnaround time. This must be accomplished through the diligent daily practice of maintaining the balance between potential conflicts involving patient care (quality), maintaining productivity (how many specimens are processed, turnaround time), and operating within financial constraints (budgetary allowance for maintaining workflow, quality control (QC) measures and reducing waste).

The prototypic laboratory has management staff consisting of the laboratory managers, and supervisors; technical staff including medical technologists, technicians, laboratory assistants, and phlebotomists; and support staff including data entry operators, messengers, and porters. A major role for laboratory managers and supervisors involves making sure that processes operate in accordance with standards, assuring acceptable quality and turnaround time, maintaining efficient workflow, and containing costs. Technical and support staff are critical to effective laboratory operations. Monitoring efficiency and effectiveness of staff members is a pivotal part of management responsibility and involves performance appraisal and where required, behavioral modification. Professionally qualified pathologists and medical (laboratory) scientists play their roles in interpreting test results, clinical decision making, developing new methods, verifying currently used methods, quality benchmarking and serving as consultants for clinicians. In most laboratories, pathologists and medical scientists are also part of the management team. In some cases, there is a business manager who takes primary responsibility for finances, budget, contract management, referral of samples and marketing. Sometimes, when finances allow, the laboratory may have a designated quality officer who oversees the management of quality issues. Quality officers also drive the quality planning and auditing process and help prepare for laboratory accreditation.

One intervention toward optimizing workflow involves the introduction of laboratory initiated reflex testing policy. In these situations, certain test orders are automatically generated as reflex tests when certain criteria are met from first-tier physician test orders. This is done in situations where the reflex test information has the potential to provide critical information for interpretation or provides for more timely patient management decisions. Reflex testing can avoid the need for a repeat blood draw, and resultant delay in receiving the second test result, and in some cases reduces the often wasteful practice of consecutive ordering of first and second tier tests together. Such initiatives typically come out of discourse between the pathologist or medical scientists with clinicians towards a more efficient diagnostic process. Additionally, the implementation of reflex testing strategies requires careful consideration of workflow, and thus involves consultation with laboratory managers and supervisors. A case outlining the different roles in reflexive testing is found at the end of this chapter.

Table 2.1. Summary of roles and responsibilities in the testing process.

Role	Responsibilities
Clinician	Works out the patient's presenting symptoms and selects the appropriate test(s)
Phlebotomist	Collects specimens, stores and packs them for transport to the laboratory
Courier/Porter	Transports the specimens and request forms to the laboratory.
Support Staff	Registers and sorts specimens received by the laboratory, warehousing of reagents and consumables.
Technician & Technologists	Prepares specimens, maintains instruments and reagents, analyzes QC and patient samples, verifies and reports test results.
Clinical Pathologist & Medical Scientist	Verifies requests and test results and writes reports based on manual delta checks, review of patient history, diagnosis, medical treatments, etc. Provides consultation for QC reviews, EQA reviews, method verifications, instrument validations, and workflow revisions.
Laboratory Supervisor	Implements workflow policy, monitors QC trends, take stock of reagents, consumables, and orders, plans staff rosters (elective and sick leave), configuring new tests in the laboratory information system (LIS) and on the instrument (interface), checks raw data, signs off host queries and transmission of results into the LIS.
IT Staff	Support of LIS (hardware and software), maintenance of databases, data safety and security
Laboratory Manager	Oversees supervisors and communicates with pathologists/medical scientists and clinicians in revising test menu, setting up reflex testing, implementing new tests, managing referrals, managing instrument contracts, sending out communications to the clients for any delays or changes, preparing instrument specifications for tenders.

All processes in the medical laboratory are maintained in written format as the standard operating procedures (SOPs). These are manually or electronically complied after being approved by management. These files are directly assessable to support and technical staff who undergo training and certification for each SOP relevant to their scope of practice. SOPs are regularly revised and document control is maintained. During the implementation of SOPs, laboratory manager and supervisors are responsible for monitoring whether staff follows procedural steps. In reality, unexpected issues may arise that are not addressed in SOPs and in some cases, these require urgent decision making by technical staff at the bench. In these

situations, the staff member must align their decisions with the mandate of the common vision (patient care and safety), while balancing other operational needs. The good laboratory leader involves other staff members in solving day to day problems whilst maintaining this balance between quality and cost so that each staff member grows through participation in decision-making processes and toward better leadership skills.

Laboratory leaders in managerial roles face challenges in rectifying non-conformities. Included are those arising from digressions from SOPs, from misconduct or by negligence. These mainly arise out of behavioral or personality issues specific to certain staff members. Without good leadership skills, such issues can easily escalate into significant conflict. Preemptive actions involving steps to resolve problems and conflicts early on can in many cases avoid the need for disciplinary action. Clinical, management and technical staff in the laboratory are not often trained to address humanitarian, psychological or social issues that impact the workplace, and thus, managers may be challenged when dealing with strong emotions and abrasive or troubling behaviors from other staff. Essential to the best outcomes in these instances is critical reflective skills, by laboratory leaders, to sense, gauge and weigh the needs of others against the needs of service delivery, laboratory business, and patient care matters during such decision-making moments. These critical reflective skills are referred to as *reflexivity.* Through reflexivity, the good laboratory leader strives to come to terms with their own inherent biases, values, and assumptions in impacting their complex roles in relation to other staff.

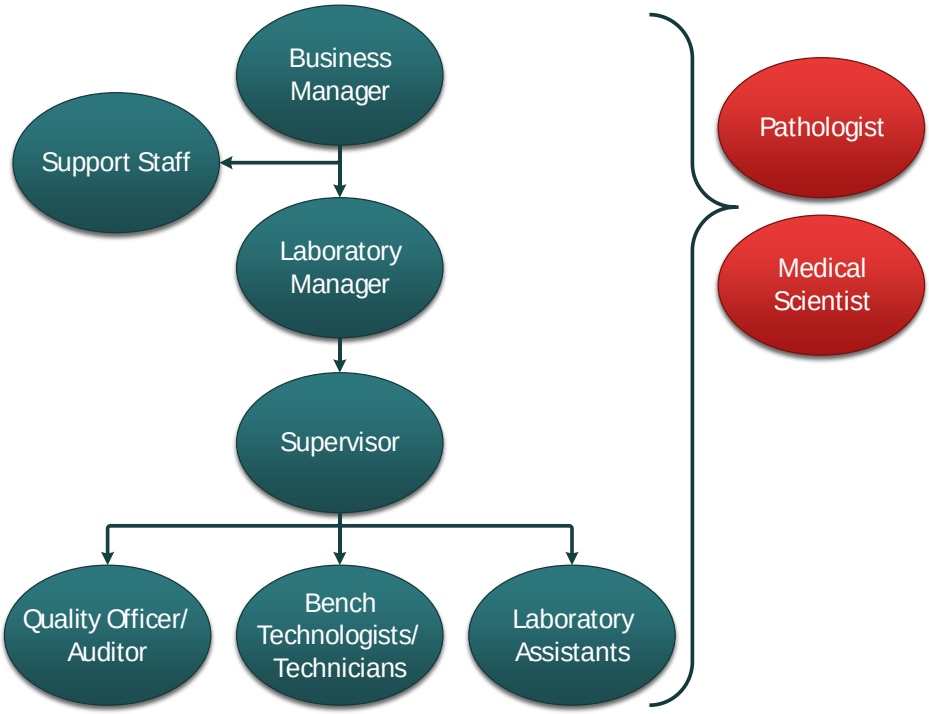

Figure 2.1. An example of a medical laboratory organizational structure

LEADERSHIP AND MANAGEMENT

Both management and leadership are important to laboratory service delivery. Although the leadership and management roles are similar in some respects, they may involve different types of outlook, skills, and behaviors. Good managers strive to be good leaders and good leaders need management skills to be effective. Leaders have a vision of what can be achieved, communicate this to others, and evolve strategies for realizing the vision. They motivate people and are able to negotiate for resources and support systems to achieve their goals. Managers ensure that available resources are well organized and applied to produce the best results. In the resource constrained and difficult environment leadership plays a pivotal role in meaningful existence and success of the organization (1).

In clinical laboratories, pathologists, scientists, managers, and supervisors may all play managerial roles to different degrees, but it is the quality of their leadership that makes the difference in patient care. Whilst we refer to these positions, we should not forget that every staff member is responsible for leading themselves. There is much literature on general leadership theories, traits, and styles but there is a relative scarcity of information on how these can be applied in the clinical laboratory environment (5). Managing staff members plays a major part in providing for a successful and quality laboratory service, thus able to influence and change unsuitable behavior or attitude is a pre-requisite for anyone in a managerial position in the laboratory. The chances of success in these roles are determined by the leadership qualities and skills of the person in the position. Laboratory professionals are not usually well equipped for solving social and psychological problems but in general, their strengths lie in their technical ability and skills in scientific reasoning. Consideration of different leadership styles is helpful in assisting the reader in personal development towards becoming more effective in the laboratory social environment.

Those who find themselves in leadership roles must have the ability to address risks or potential problems as they arise, and adapt their leadership style and strategy to most effectively address each unique situation. We are leaders whilst also followers and interchange between the two many times during our work. This gives us the opportunity to develop humanity and empathy for staff members led by us, but can also provide us with the opportunity to critically evaluate our own styles in order to make them more effective.

Effective leaders can add value simply by being present on teams. They are inspirational and motivating. They know the right things to say to people to help them understand what's needed, and they can convince people to support a cause.

LEADERSHIP TRAITS AND SKILLS

Character traits are to a degree imprinted in our genetic makeup but can be further developed by family upbringing and other environmental factors. Different works have highlighted traits and characteristics of a good leader, and whilst they may not

all be in agreement, as they reveal different author's unique perspective, in combination, they provide a comprehensive description of good leadership. Readers are encouraged to reflect on these in terms of those they already hold and those they could develop (6).

- Intelligence, adjustment, dominance, extroversion, conservatism, alertness, insight, responsibility, initiative, persistence, self-confidence, cooperativeness, tolerance, influence, sociability, drive, motivation, integrity, confidence, cognitive ability, task knowledge.

Favorable traits for leadership include adaptability to different situations, alertness to the social environment, openness, honesty, self-discipline (integrity), passion, compassion, empathy, humility, having a sense of humor, ambition, goal orientation, assertiveness, intelligence, creativity, cooperativity, decisiveness, dependability, firmness, energetic, inspiring, motivating, persistence, self-confidence, tolerance to stress, and willingness to serve and assume responsibility. Of all, integrity stands out as a basic one that nurtures other traits (7).

Skills are the acquired abilities one develops over time through training, mentoring, experience and behavioral change. Leaders require interpersonal (social) skills that contribute to effective listening, answering, explaining, writing, speaking, presenting, facilitating, and to being diplomatic and tactical, persuasive, and influential; and coupled with organizational skills, administrative skills, cognitive and conceptualization skills, and mathematical skills. Expertise in the field where the leading takes place is an additional skill. Of these, expertise in the field and inter-personal skills than to stand out as most important.

ARE LEADERS BORN OR MADE?

The question raised is whether being a good leader is a trait one is born with or is it rather what a person develops into. Natural leaders inspire and influence followers, but some of these also develop into leaders themselves. Based on the traits theory, these leaders had the inborn potential. However, compromising the polarized views, a hybrid model has emerged indicating that leadership ability can be a born potential that requires cultivation in order to reach its full potential.

Author and leadership coach Erika Anderson (8) observed that leadership ability is distributed on a bell-shaped curve where the top few are very good natural leaders. The other tail of the curve represents those who are struggling to lead regardless of training and mentoring, and their leadership tends to be negative or unsuccessful. The remaining middle majority is to some extent born with some leadership traits but can be developed into better leaders through nurturing existing traits (8). Identifying and investing in people at the top and middle part of the bell curve is of importance to the organization poised to prepare its future leaders.

LAYERS OF LEADERSHIP IN THE LABORATORY ORGANIZATION:

Like other organizations, the clinical laboratory middle management, illustrated in the

roles of pathologist/medical scientist, laboratory manager, and laboratory supervisor (**Figure 2.2** layers 2-4) are those with greatest potential to move the organization to action. The top tier is those in higher management and administration. These provide strategy, vision, and mission. The lowest tier implements but the middle managers influence the lower tier and steer and monitor various courses of action authorized by higher levels of management. Based on this, the workforce at the lowest tier of the management scheme represents the majority of staff members. These are considered led rather than as being leaders. However, in the well-led laboratory, the workforce is empowered to assume accountability and demonstrate leadership in tasks assigned. That brings us to reflect on who the leader is. The leader is not one who necessarily has the authority to lead, but is the one who has leadership qualities and applies leadership skills in their station - anyone in the laboratory can be a leader.

Assessments of Leadership skills are found in **Appendix A**.

One has to lead oneself before leading others. Self-leading involves recognizing what needs to change in self and in the immediate environment for progress to be made. This requires integrity (choosing to do the right thing regardless of the consequences) and teamwork (working with others towards a common goal). The laboratory environment involves shared responsibilities. Many laboratories operate in shifts and use of common workspace, duties, instruments, and reagents, and samples. Determining how to instill the seed of self-discipline into staff (and also managers) is the key to success for the organization, and leaders require this ability.

Regardless of where one is among the layers of leadership (**Figure 2.2**), the ability to manage one's time, attention and emotions are important. Managers and supervisors leading staff should be familiar with their own personal strengths, weaknesses, and potential bias. They need to pay attention to the details whilst not losing track of the overall mission and vision of the organization. Self-awareness involves the ability to manage one’s own feelings in order to respond to people and events in an authentic and appropriate manner. Another quality is self-control which involves being disciplined, without being too reserved or inflexible. Resilience, another trait, involves managing stress and devoting time to important areas of life outside of work.

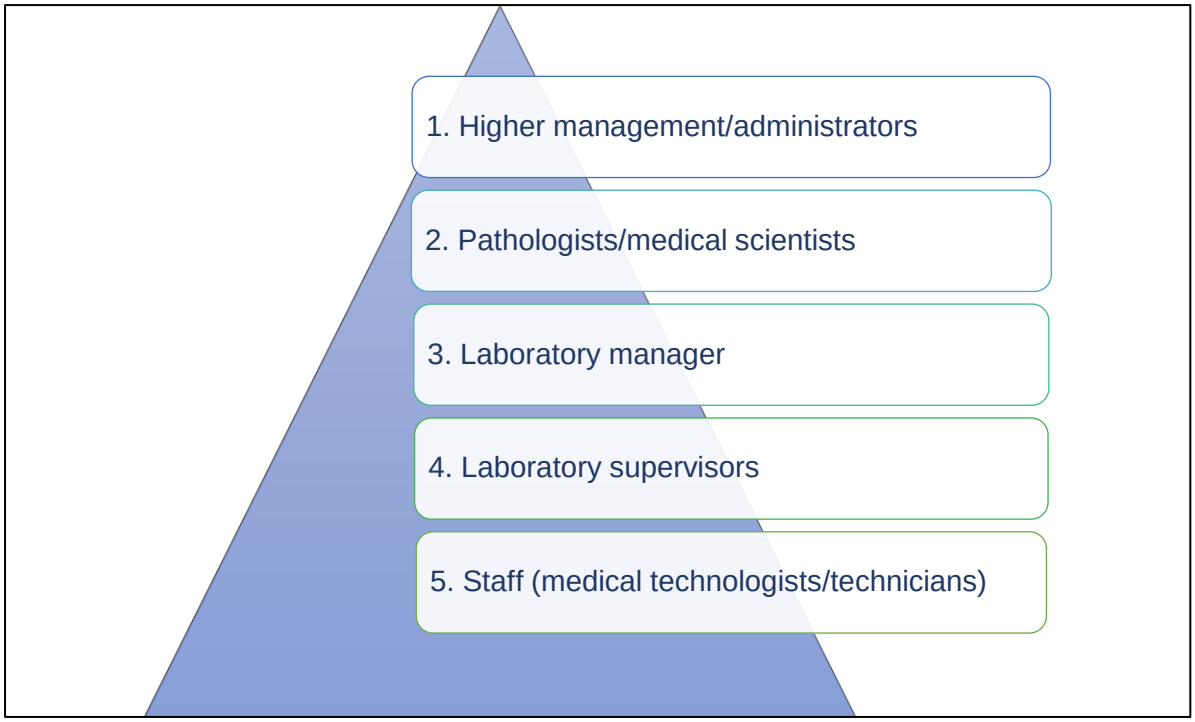

Figure 2.2 Layers of leadership in a medical laboratory

At the American Society of Clinical Pathologists general meeting in 2011, Weiss (5) identified a number of common leadership deficiencies to avoid. In the list was included: an uncaring attitude, avoidance of difficult situations & decisions, lacking personal character, lacking vision, showing favoritism, failing to hold others accountable, and having poor communication and interpersonal skills. The presentation concluded with a list of attributes of a successful and effective leader. Among the attributes identified in this list included: actively demonstrating the value that laboratory leaders bring to patient care; working closely with other health care stakeholders; managing limited resources effectively; being an effective communicator; and advocating for continued improvement and change in self and others, facilitating positive evolution of health care delivery and beneficial innovations. The World Health Organization (WHO) also endorses the attributes of a good leader in healthcare services as one having a sense of mission, being charismatic, able to influence people to work together for a common cause, decisive, creative in problem-solving to promote better care and a positive working environment (9).

Managers who have these leadership qualities are a credit to the services they manage. However, managers must ensure that day-to-day processes run well to produce the desired results. Certain attributes are required for a manager if they are to be effective, including being clear in explaining the purpose and tasks; having good organizational skills; having ability to communicate tasks and expected results effectively; having ability to negotiate various administrative and regulatory processes; and having good delegation skills (10).

LEADERSHIP STYLES

There are different styles of leadership manifested by different leaders. Amongst these are charismatic, participative/democratic, autocratic, Laissez-faire, situational, transactional, transformational, servant, and quiet leadership styles. All of these styles can be related to the clinical laboratory (11).

CHARISMATIC LEADERSHIP STYLE

Charismatic leadership is a modern leadership style. The charismatic leader uses charm to get the admiration of their followers. They show concern for their people and they look after their needs. They create a comfortable and friendly atmosphere for their followers by listening to them and making them feel that they have a voice in decision-making. Examples of famous charismatic leaders are Winston Churchill, Bill Clinton, Barack Obama, and Nelson Mandela. In laboratory service the need for such leaders is greatest at the top for inspiring, motivating, forward-thinking, moving the whole organization to the next level and most importantly developing other leaders.

DEMOCRATIC LEADERSHIP STYLE

The democratic or participatory leadership style is usually seen in corporate settings. Participatory leaders act as facilitators. They facilitate the development of ideas and the sharing of information with the end goal of arriving at a decision. The final decision ultimately rests on the leader but all considerations and factors of a decision come from the collective mind of the group under this leadership. Such leadership becomes important to the laboratory, especially when facilitating significant short-term and long-term change (change management).

AUTOCRATIC LEADERSHIP STYLE

Autocratic leadership, also known as authoritarian leadership, is a leadership style characterized by individual control over all decisions and allowing little input from group members. Autocratic leaders typically make choices based on their ideas and judgments and rarely accept advice from followers. Autocratic leadership involves absolute, authoritarian control over a group. However, there can be situational benefits in this style as it can be used when urgent decision making based on justifiable need is required.

SITUATIONAL LEADERSHIP STYLE

Situational leadership style brings three factors into play in affecting the leader's decision: the situation, the capability of the followers, and the capability of the leader. The leader adjusts to whatever limitations presented by subordinates and the situation itself. Adaptability is the key here. These leaders need to be as dynamic as the different situations they are faced with. This is also important in the laboratory where many factors can influence day to day operation despite efforts to maintain stability and standardize processes. A situational leader adjusts to the changing

circumstances to cope with challenges and this leader must know team members well in order to strategize a new plan (join/coach/delegate/tell). The clinical laboratory is one of the contexts where the situation can change (at times unexpectedly) thus such style may be useful.

LAISSEZ-FAIRE LEADERSHIP STYLE

Laissez-faire leadership style, also known as delegative leadership, involves a hands-off approach, allowing group members to make decisions. The Laissez-faire leader can be effective in situations where group members are highly skilled, motivated and capable of working on their own (expert group members). This granted group autonomy can be freeing to some group members who may then gain greater satisfaction from their work. The laissez-faire style can be used in situations where followers have a high-level of passion and intrinsic motivation for their work. While the conventional term for this style is 'laissez-faire' and implies a completely hands-off approach, many leaders still remain open and available to group members for consultation and feedback. Laissez-faire leadership is less useful in situations where group members lack the knowledge or experience required to complete tasks and make decisions. Some people are not good at setting their own deadlines, managing their own projects and solving problems on their own. In such situations, projects can go off-track and deadlines can be missed when team members do not get enough guidance or feedback from leaders. In some situations, the laissez-faire style leads to poorly defined roles within the group. Since team members receive little to no guidance, they might not be sure about their role within the group and what they are supposed to be doing with their time. Laissez-faire leaders are often seen as uninvolved and withdrawn, which can lead to a lack of cohesiveness within the group. Since the leader seems unconcerned with what is happening, followers sometimes pick up on this and express less care and concern for the project. Some leaders might even take advantage of this style as a way to avoid personal responsibility for the group's failures. When goals are not met, the leader can blame other members of the team for not completing tasks or living up to expectations.

TRANSLATIONAL LEADERSHIP STYLE

Transactional leadership style establishes a clear chain of command. The leader motivates subordinates by presenting rewards and punishments. All requirements for a subordinate are clearly stated with corresponding rewards. If subordinates fail to satisfy those requirements, they will receive a corresponding punishment. Coaches of athletic teams provide one example of transactional leadership. These leaders motivate their followers by promoting the reward of winning the game. They instill such a high level of commitment that their followers are willing to risk pain and injury to obtain the results that the leader is asking for. Another example of transactional leadership is former Wisconsin state senator, Joseph McCarthy, and his ruthless style of accusing people of being Soviet spies during the Cold War. By punishing for deviation from the rules and rewarding followers, McCarthy promoted results among

followers. This leadership style is especially effective in crisis situations, and another example of this type of leadership was Charles de Gaulle. Through this type of reward and punishment, he was able to become the leader of the free French in a crisis situation. This style can be useful in the laboratory especially when staff does not follow procedures and policies. It relies on the human nature of responding to the conditioning of good and bad outcome.

TRANSFORMATIONAL LEADERSHIP STYLE

Transformational leadership style involves leading by motivating followers, through appealing to their followers' ideals and morals and thereby motivating them to accomplish tasks. Basically, these leaders empower their followers using their own beliefs and personal strengths. Simply put, they inspire their followers. Famous transformational leaders include Martin Luther King Jr., Gandhi, Mother Theresa, and others. Nelson Mandela has been also suggested as one in the South African context, who transformed some of its citizens by his values. The difference between Transformational Leadership and Transactional leadership is that the former solves the root of the problem, and allows the tree to flourish whilst the latter handles day-day changes as they come without paying attention to the root of the problems.

QUIET LEADERSHIP STYLE

Quiet leadership style involves leading by example. Quiet leaders do not tell people what to do or force people to do things that they are not willing to do. They do not give loud speeches, sweeping statements, and clear-cut orders. Quiet leaders do what needs to be done, and inspire their followers to do the same. They may plan and calculate quietly without communicating with their members. Examples of the quiet leader are Rosa Parks, King George VI, Abraham Lincoln, and Woodrow Wilson. This style is not useful in the laboratory environment according to our experience but this may depend on the culture of the staff (the way they behave in the workplace). Not being explicit about the consequences or actions to be taken when unfavorable behaviors are observed, and also not being able to take actions, are detrimental parts of this style.

SERVANT LEADERSHIP STYLE

Servant leadership style involves the leader taking care of the needs of his followers first before taking care of their own. Instead of acting like a king to their subordinates, these leaders act as servants. The leader feels that they need to serve their followers rather than force upon them what they want. Famous examples of servant leaders include George Washington, Gandhi, and Mother Theresa. Nelson Mandela can also be included as he was ready to die for his people. Leading by example (of serving the community/patients) related to this style and it is useful in laboratory practice where human rights, ethics, and professional conduct is to be modeled.

From the descriptions above it is clear that all styles come with pros and cons, and the advantages may depend on the context in which it is to be used. In some cases,

mixtures of styles may be used in order to realize the best outcomes. In our experience at the clinical laboratory, the people in managerial roles in the laboratory service require a multiple/combined approach with a mixture of styles, interchanging depending on the situation, requiring a great sensor to decide which and when to use and change. The real-life examples of these are shared as case studies below.

CHALLENGES IN THE LABORATORY SERVICES

Challenges facing the laboratory are both visible and hidden. The visible challenges are determined by strategies, objectives, policies and procedures, structures, technology, formal authority, and chains of command. Hidden challenges come in the form of attitudes, perceptions, group norms and culture, informal interactions, and interpersonal and inter-group conflicts. The hidden aspects are usually more challenging and have the potential for the ruin of the whole organization from within. For managers and supervisors to manage these hidden problems, a great sense of humanistic abilities and understanding of human psychology and emotional needs is required. The hidden problems indicated above are more commonly seen in environments where staff and managers come from previously divided racial and socio-cultural backgrounds.

Laboratory leadership establishes work culture based on ethics and professional values (see Chapter 6). But understanding each other's culture can lead to respectful engagement with the different other and enable adherence to the organizational culture in spite of personal differences. Some of the case studies below help illustrate how various staff members in managerial roles solve problems that involve behavioral change and positive impact in their work (11).

CONCLUSION

In practice, a mixture of leadership styles is required by a laboratory leader facing unpredictable situations in their work environment. Leaders need to thoroughly understand the root causes of the problems they face, consider attitudes, and the socio-cultural diversity of staff members in order to swiftly find solutions that are both practical and feasible (5). One may have to use a different leadership style to communicate the solution to staff. Culturally acceptable ways of communication, honesty, empathy yet firmness, and discipline are the guiding principles of capturing buy-in from staff. Pros and cons in making the case for change should be communicated clearly because staff members in the laboratory have the need to be acknowledged and treated as professionals. Moreover, sharing information and educating is the best way to obtain group consensus when dealing with a change from the long-standing norms of practices and behaviors. A leader in the laboratory should not only nurture desirable traits and skills but also demonstrate a sense of knowing and deciding what leadership style to use and when to change the style when facing problems with the staff members.

An assessment of Leadership Style is found in **Appendix B**.

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CASE STUDY AND EXAMPLES

Answers to the questions associated with each case are found in **Appendix C**.

CASE 1

Implementation of a reflex test strategy provides a good example to examine more closely how decision making roles play out through the phases of the testing process. The following case scenario can be used to develop an understanding of

the roles and responsibilities of a laboratory leader and good laboratory leadership. Reflect on how this example would work out in your laboratory, and determine who is responsible for each phase with respect to responding to the need for setting up a reflex test strategy.

Please note that the questions in the case below are of two types (clinical and operational). The answers may vary depending on local guidelines concerning testing or local laboratory operational policies. The clinical questions have answers provided for the benefit of participants who are not familiar with clinical medicine.

For the operational questions complete the tables with reference to the five phases of the total testing process, reflect on your laboratories practices in determining who plays a leading role during each phase, and the process for implementing the reflex test. In your answers, also reflect on the basis of leading roles of laboratory professionals based on the descriptions given in **Table 2.1**.

A 67-year-old lady was seen by her family doctor and due to a recent history of cold intolerance; thyroid disease was thought to be a possibility. Some of the questions involving laboratory tests that may arise from this patient encounter include: Which test must the doctor request as a first tier test and why? What would be the reflexed test? What other tests could be reflexed after the second tier test?

Discussion

The first tier test would be TSH (thyroid stimulating hormone) because it is the most sensitive test among tests on the thyroid function profile, due to its log-linear relationship with free thyroxine (FT4) in patients when the hypothalamic-pituitary-thyroid axis is functioning well.

FT4 is reflex tested when TSH is either higher or lower than the age-specific reference range, in order to establish hypo or hyperthyroidism.

In this case, the history of cold intolerance favors the possibility of hypothyroidism, thus the TSH is expected to be high and FT4 low. Then the next tier of test would be to investigate the underlying cause, for example by testing for anti-thyroid peroxidase antibodies. Autoimmune thyroid disease would be considered if these are positive or above the manufacturer's ref range.

Complete the table identifying the personnel and process involved, in relation to implementing the relevant reflex tests.

PHASE	LEADING ROLES	PROCESS
PRE-PRE ANALYTICAL		
PRE-ANALYTICAL		
ANALYTICAL		
POST-ANALYTICAL		
POST-POST ANALYTICAL		

CASE 2

Nhlapo has been a supervisor in the Immunoassay section of an accredited Clinical Chemistry Laboratory for 8 years. One day he noticed that a staff member working on the analyzer was pouring the control material into the cup (reaction vessel) instead of pipetting out the exact amount and loading on the machine to run the internal quality control (IQC).

As this behavior leads to wasting of controls, he immediately confronted the staff member, who then denied doing it. As the cup was loaded already, it could not be used as evidence. It took another 40 minutes for the internal controls to finish whilst waiting to retrieve the cup. During that time, Nhlapo thought about how to approach this problem. The staff member involved had been working in this laboratory for more than 10 years and was well-known for taking shortcuts in procedures. It would take a new approach to deal with him with this problem. When the rack came out, Nhlapo took out the cup and showed the staff member the amount left over after the QC run. The instrument had a recent probe problem resulting in defective level sensing which was fixed by the company technician. Using this as an excuse, the staff member defended his behavior by responding that he poured extra volume in case the probe cannot sense the level. He also suggested that he should pour the remaining control material back to the bottle as not to waste any. All staff members in this laboratory are trained in how to handle reagents and controls before they are signed off to operate instrument and consumables. It was therefore not sensible for this staff member to behave as such. Nhlapo firmly explained that the recent probe problem was a partial blockage and, thus, it made no sense to assume that it will aspirate more than it is supposed to, and also that pouring back the leftover control would contaminate the primary bottle. He reminded the staff member of his competency training on how to handle the controls before he was authorized to work on this instrument, and also reminded him of his duties in the job description (which was signed by him) that included proper handling of consumables and prevention of contamination. Nhlapo then asked for the staff member's opinion on how this contamination could impact IQC results and asked the staff member to calculate the waste in monetary terms based on the cost of a bottle of control material per unit of volume.

After 2 hours, Nhlapo came back to the staff member to get answers. The staff member replied with reasonable answers that the forthcoming IQC results may show positive bias due to possible contamination and the cost incurred for the waste (repeats in this particular QC level due to positive bias and having to discard the bottle when contamination is revealed) amounted to about 20% of his salary. By elucidating the impact of the staff member's actions, Nhlapo was able to transform this staff from the point of poor behavior to understanding the consequences and making effort to abide by the procedures.

Q1: Identify elements of different leadership styles throughout Nhlapo's interaction

with the staff member.

CASE 3

Swazi was the supervisor in the Clinical Chemistry section of the laboratory for more than 10 years.

The service was disrupted due to a violent student strike and as the laboratory is situated on the same campus, staff had to evacuate. There were critical patient samples received in that morning just before the strike broke out. The hospital management was informed to send specimens to the emergency service center on the hospital ground where the laboratory staff gathered to find solutions to refer the work to another laboratory. Swazi took a stand and went into the laboratory forbidden for access to processing the critical specimens and analyze them on the machine. He waited until the analyses were done; results were downloaded on the LIS so that the pathologist-on-call could sign them out on the service center computer. He took a decision to serve despite the risk to his safety twelve months later; the laboratory management established the emergency laboratory on the hospital ground as a backup site in response to recurrent problems in the university compound.

A month after that, another staff member was found drunk and collapsed in the STAT laboratory during the night shift. Due to poor resources in Africa, there was only one staff member assigned for the night duty, thus the laboratory became stranded. Swazi was informed by one of the hospital doctors who witnessed this. He drove up to the hospital immediately and took the staff member to the emergency unit for treatment. Upon his recovery, Swazi initiated counseling for this staff member followed by the disciplinary meeting. The staff member subsequently quit drinking.

Q2: Identify elements of different leadership styles throughout Swazi's response to the mentioned problems.

CASE 4 ROLE OF MANAGER IN RESPONSE TO EXTREME CONDITIONS

Steven has been an operational manager in this same laboratory for the past 15 years.

The two supervisors; (Nhlapo and Swazi) report to him. Over the years, they developed a good working relationship although there are some challenges in dealing with one of them due to a difficult personality.

One day, some reagents arrived at the procurement office which is located on the first floor of the laboratory building. Usually, the procurement clerk would bring them to the laboratory but a recent change in suppliers has brought in new types of reagents that require immediate freezing, which requires someone from the laboratory to pick them up immediately from the first floor. The procurement officer called Steven as one of his supervisors refused to fetch the items from the first floor. Steven went to this supervisor to ask why he refused. He responded that he was not

a courier for the procurement office, and thus refused to go.

Under normal circumstances, one staff member of the procurement office would bring the reagents up to the laboratory. However, during that time, there was only one staff member left in the procurement office due to the illness of the other. If not fetched, the reagents would be left at room temperature and their stability would be compromised.

Steven decided to fetch the items. When he came back to the laboratory, the supervisor was stunned but quietly received the items and put them in the freezer. Next day, he came to Steven to apologize for his unprofessional behavior and assisted Steven in making a departmental policy of staff regularly fetching these items. Since that day, he has never refused to rise to the occasion where an emergency arises and always explain his subordinates why we have to follow the strict procedures in the handling of reagents.

Q3: Identify elements of different leadership styles throughout Steven's experiences mentioned in the case.

CASE 5 INTERNAL AUDITOR

Dimpho is a senior medical technologist and also an auditor for the national society of laboratory accreditation. She, therefore, provides internal audits at regular intervals for her own laboratory and for those in the surrounding areas.

She usually finds it difficult informing staff members about non-conformances that she found during the audit as they had caused confrontation and arguments in the past. She had thought about how to handle these situations better and came up with a strategy. She created a system that rewards staff members who have not had any non-conformance events between audits. The reward involved a certificate which she mounted on the wall in the staff tea room. The system also required those with non-conformances to pay R20 for each event which was given towards the staff's year-end party.

She provided training on the checklist she used for the audit and the nature of non-conformances and then explained the reward and penalty system to all members. She then announced the date for implementation of this system. It was found that in the later audits that year, the number of non-conformances significantly decreased and recognized staff members were proud of their accomplishments and the others were motivated by them.

Q4: What leadership styles did Dimpho use as an internal auditor?

CASE 6 DEALING WITH STUBBORN BEHAVIOUR

Dr. Mpilo has been a pathologist in the same laboratory for 3 years. Although she is still junior in her role, she is hardworking, honest, dedicated and a caring professional. She speaks the truth, whilst reassuring and motivating when staff members come across problems.

While on duty, she found a male laboratory staff member who was issuing results for a test with failed IQC by overwriting the instrument warning. Since it was after regular daytime working hours, supervisors were not around. She was aware that this staff member is a difficult person and recently demonstrated violent behavior towards the supervisor. She, therefore, became instantly tense with the problem and even thought of repeating the IQC herself without talking to him. However, she realized that this would just affirm this bad behavior in the future, and he would repeat this again, thus decided to take a stand and face him to address this problem.

She first gathered the evidence from the instrument computer, issued results and patient's details. Then she went to him to accompany her to the instrument to check the daily IQC. Then she pointed out the failed IQC and lack of action taken and showed him the printed results. Instantly the staff member responded that he did not see the instrument alert, thus bypassed the IQC. She then explained the condition that the patient was in, and the treatment the doctors had prescribed for the patient using the results he issued and this affected the patient because they were based on wrong decisions due to erroneous results.

He replied that if he knew this would be the consequence, he would not have bypassed the IQC, which revealed that he saw the initial alert. He then admitted his mistake and in future, the supervisor reported that he observed this staff member changing his general behavior.

This story inspires us with courage and commitment of a young pathologist standing up against a senior member of staff for whom management had given up on to correct the behavior.

Q5: What leadership styles did Dr. Mpilo, as a pathologist used in her challenge with the stubborn staff member?

CHAPTER 3

Skills and Qualities of a Good Leader

MATTHIAS ORTH

LEARNING OBJECTIVES

1. To define the tasks and skills of the laboratory manager
2. To distinguish a healthcare laboratory compared to non-medical laboratories (patient wellbeing, medical act, legal restrictions)
3. To describe the impact of changes in the quality of test kits and instruments, on the workload of a laboratory manager
4. To describe the challenges of being a leader in a healthcare laboratory
5. To discuss the challenges with dealing with the expectations of patients and healthcare professionals in a world with less visible national boundaries

KEY QUESTIONS

- How do you define your role in the healthcare system of your country?
- How do you grade your skills to counsel other physicians?
- How do you grade your skills to counsel patients (if legal in your country)?
- Is there a formal process for postgraduate continuous education (such as continuing medical education (CME)) for the laboratory manager?
- Do you know the expectations of stakeholders concerning the skills and qualities of a laboratory manager? And do you perform formalized feedback (such as surveys, questionnaires, “suggestions, questions, praise, and blame”)?

INTRODUCTION

Management involves the organization of tasks and processes. The verb "manage" originates from the Italian *maneggiare* (to handle, especially tools or a horse), which is derived from the Latin words *manus* (hand) and *agaree* (to act). The French word for housekeeping, *ménagerie*, which is derived from *ménager* ("to keep house"), also encompasses taking care of domestic animals.

The meaning of *manus* is to lead by the hand and of *mansion agaree* the meaning is

“to do housekeeping for the proprietor”. The current meaning of managing as “*to the head, to lead, to be in charge of”* is a narrowing down of the original meaning.

When it comes to skills necessary for the management of a laboratory, we first have to define from the stakeholders’ perspective their expectations of a laboratory managerial role. These stakeholders include patients, laboratory personnel, other healthcare workers, and hospital administration.

Medicine is made up of manual skills, applied science and involves both theoretical and applied knowledge. The skills of a laboratory manager should, also, embrace all of these areas.

SKILLS AND QUALITIES NEEDED AS A LABORATORY MANAGER

The proportion of manual work done by the laboratory manager has declined in recent decades. The focus of the work of a laboratory manager has shifted from the analytical phase to the pre-analytical and post-analytical phases. In particular, counseling of physicians and patients in selecting appropriate tests and interpreting results by the Clinical Pathologist is pivotal to the well-being of the patient. One reason for the different expectations for the necessary skills of a laboratory manager today is derived from greater standardization of laboratory tests. The greatest evolution in laboratory resources has occurred in recent decades through the supply of tests, technologies, and instruments. Huge improvements in instrument design together with the successful standardization of reagents and instruments allow *In* vitro diagnostics (IVD)-companies to offer ever-improving diagnostic systems for many areas of the clinical laboratory. Caused by these rigorous improvements in the analytical process, many technical chores such as the preparation of reagents or the tedious adjustments of instruments previously and regularly performed by highly qualified professionals in laboratories, and overseen by the laboratory manager, has almost completely shifted to the IVD-companies. With the widespread use of CE (Conformité Européene or European Conformity) marked reagents, even many tasks involved in test evaluation need no longer to be repeated by the laboratory specialist as more reliance is placed on the evaluations performed by the IVD-companies. In addition, a wide array of improvements in pre-analytical processes (such as electronic orders, diagnostic pathways, barcode coding of primary samples, robot-assisted aliquoting, permanent temperature control of reagents and samples, automatic checks for clots, hemolysis, lipemia and icterus) (1), analytical processes (in particular using highly standardized techniques with low Intra- and inter-assay variation) and post-analytical processes (such as autovalidation and sending reports electronically directly to the health record) have occurred in recent years (2).

These improvements and time savings allow many Clinical Pathologists to spend less time with the analytical processes and toward assigning most of their time to partner with physicians (and to patients) for selecting and interpreting laboratory tests and advising therapies. Extensive practical and theoretical medical expertise is essential for these tasks, with a special focus on medical knowledge and practical

experience and laboratory management skills and less focus on analytical techniques. This has to be accompanied by a changed expectation concerning the necessary skills of laboratory managers by stakeholders.

Despite many technological improvements, manual work can still be the cornerstone of a laboratory manager's role in some special testing areas such as in cytology, malaria microscopy, microbiology, hemostaseology, complex toxicology testing, laboratories making use of mass spectrometry coupled techniques, or in autoimmune disease testing.

PERCEPTION OF NECESSARY SKILLS DEPENDENT ON THE PROFESSION OF THE LABORATORY MANAGER

A challenge to the definition of skills necessary for the laboratory manager is the differences across different countries in the participation of distinct professions in laboratory medicine. Included among this diversity of participating professions are physicians (Clinical Pathologists), Clinical Scientists, and scientific and non-scientific bioanalytical technologists.

To safeguard patients, federal legislation restricts the practice of medicine to (licensed) physicians. In most countries, the activities restricted to physicians (determined in the "Medical Act") includes diagnosing illnesses, prescribing diagnostic examinations, using diagnostic techniques that are invasive or entail risks of injury, determining medical treatment, prescribing medications and other substances, providing clinical monitoring of patients whose state of health is problematic, providing pregnancy care and conducting deliveries and deciding to use isolation measures (3). This definition under the medical act is currently challenged by the need to delegate some parts of defined procedures to other professions (mainly due to financial restraints or by a shortage of skilled professionals) and there are also ongoing endeavors for the substitution of the work primarily reserved for physicians to other professions. This also has consequences for the necessary skills, both from the perspective of the laboratory manager (**Figure 3.1**) as well as from the perspective of the laboratory personnel.

THE MEDICAL ACT, THE MEDİCAL LABORATORY AND NECESSARY SKILLS

When it comes to laboratory medicine, the complex processes in a medical laboratory, from obtaining the patient's sample to issuing the medical report, can be dissected into many smaller segments of work. It is obvious that many of these smaller segments can be performed by persons who are trained for this particular work, irrespective of their educational background. It has to be noted that medical practice –irrespective of the discipline -- requires both the science of medicine (i.e. detailed knowledge of anatomy, physiology, and biochemistry as well the underlying diseases and their treatment) and the craft (or art) of medicine (i.e. competence in its applied practice including the Social Sciences), obviously with differences in the importance of science and craft among medical disciplines. Other key skills of a Clinical Pathologist are good medical practice, leadership, and continuing efforts

research, development, and innovation (4).

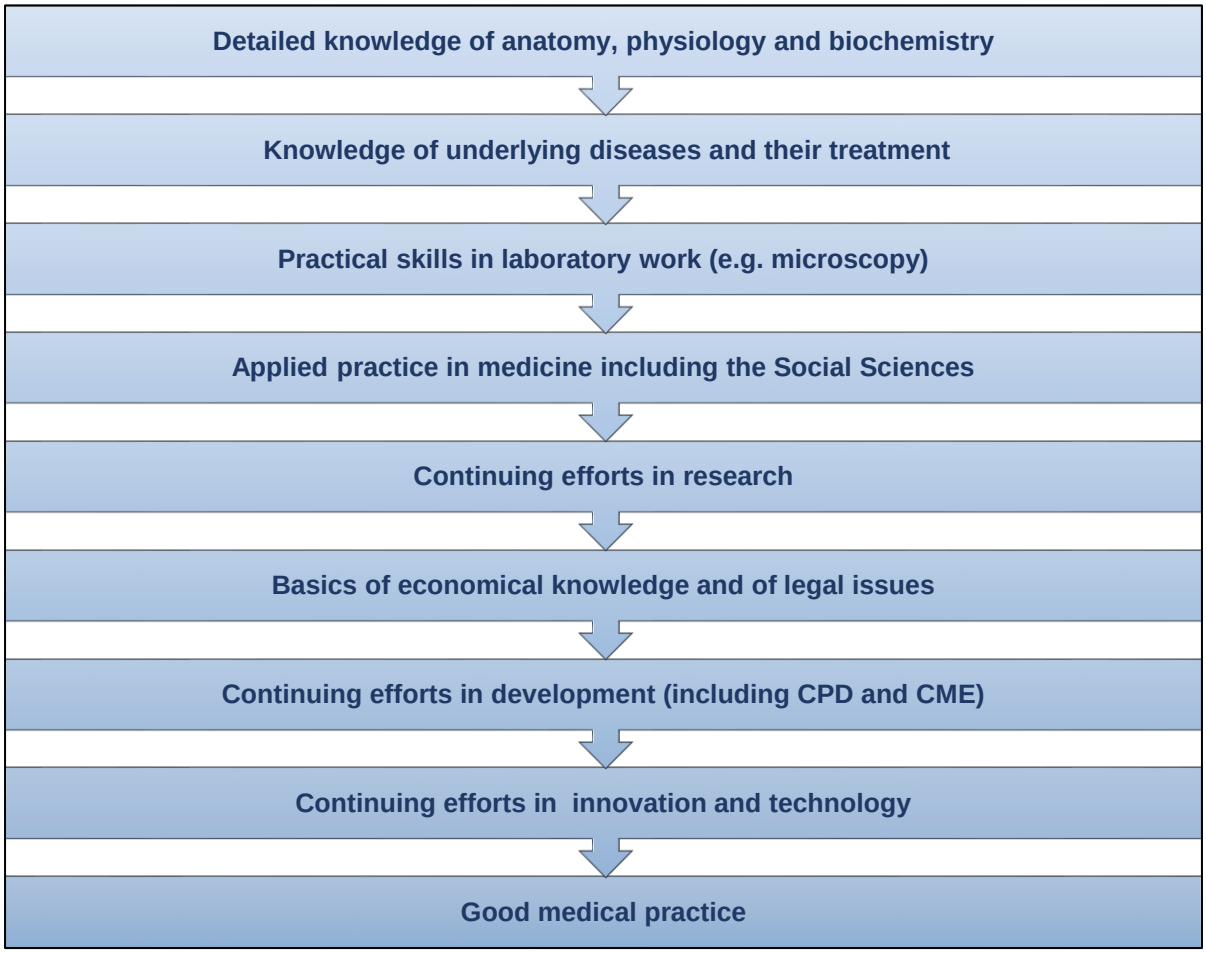

Figure 3.1 Necessary skills of a Laboratory Manager

Basically, the patients` well-being should be universally definable. However, the situation becomes even more complicated due to the federal systems of healthcare: Heterogeneous healthcare systems, as well as the different allocation of resources (e.g. to laboratory medicine in different countries), result in differences in the role of medical laboratory physicians and scientists, and scientific and non-scientific bioanalytical technologists in the medical laboratory (5).

Healthcare and the Medical Act are also challenged by the increasing specialization in medicine as well as the increasing percentage of part-time employees. This is in contrast to the time when the Medical Act was defined for the first time with the perception of a single one polyvalent physician (the former personal physician) being responsible around the clock for their own patients, working alone without or with only little assistance from coworkers (3). A similar challenge arises when the position of a laboratory manager is split between two part-time employees. Good social skills are necessary to demonstrate the unique personalities of both part-time laboratory managers to allow mutual compensation for each other.

The definition of the necessary skills for laboratory manager is also dependent on the size and the kind of the laboratory: The complexity and the volume of testing differs markedly between laboratories, the level of direct intervention by the clinical pathologists is different between laboratories of differing size and in different countries. In addition, the personal contact between the clinical pathologist and patient occurs on a regular basis in some countries but is rare or even non-existing in others.

Another essential skill needed as a laboratory manager is the willingness to pursue life-long learning. In many countries, formal programs such as CPD (continuing professional development) and CME track the scope and the success of participation in such a program. In countries with voluntary CPD/CME programs only, the laboratory manager has to participate in such programs out of personal initiative without obligation.

SKILLS NEEDED FOR MEDICAL INTERPRETATION

The whole *in-vitro* testing process was adequately named the “brain-to-brain loop” (6). This loop runs from the clinical question over selecting the appropriate test(s) and obtaining the patient’s sample over to the analytical process and to the post-analytical steps with determining medical treatment, prescribing medications and other substances, providing clinical monitoring of the condition of patients, providing pregnancy care and deciding to use isolation measures – all typical elements described in the Medical Act. With the exception of very few tests, it is obvious that all other tests need medical interpretation (7). Medical interpretation goes far beyond the labeling of “normal – abnormal test result” and – as a part of the Medical Act – has to be done by a physician (8). In the ideal world, this physician not only knows the limits of the analytical part (i.e. the testing process) but is also experienced in the consequences of a certain test result, in the context of other diseases, certain therapies and in the clinical course of the disease. It remains open whether these tasks are better done by a medical laboratory specialist focused on certain specialties of Clinical Pathology only (such as Endocrinology or Hemostaseology) or by a medical laboratory specialist covering all subjects of *in vitro* testing (i.e. Hematology, Clinical Chemistry, Immunology, Laboratory Genetics and often Microbiology) (8). In our experience, depending on the local situations both the medical laboratory specialists and the medical laboratory generalists can give adequate counseling. There are some advantages of the generalist as he can be the expert of *in vitro* diagnostics who oversees the whole testing spectrum in Clinical Pathology – but this means, that the skills have to cover the whole spectrum of laboratory medicine. In certain situations, however, in particular, in very complex patients and in the university hospital setting, two or more laboratory specialists might be more appropriate for optimum treatment of the patient. It is not unusual, that academic bioanalytical specialists participate in clinical rounds and share their advice, similar to nurse consultants or pharmacist consultants. In hospitals with clinical rounds, there is a long tradition of sharing knowledge between different

professions with mutual respect. Again, extensive social skills are needed from the laboratory manager so that all professions involved can give their input to the benefit of the patient while legal issues such as accepting different responsibilities of the professions involved have been taken into account. The laboratory manager has also to be aware of legal issues which are currently roadblocks to moving certain areas of laboratory medicine to nonqualified practitioners or laypersons. In particular blood transfusions, genetic testing and dealing with contagious diseases in many countries are restricted to physicians only and certain diagnostic kits can only be exclusively obtained by a physician's prescription.

DIRECT ACCESS OF PATIENTS TO BIOANALYTICAL SPECIALISTS (NON-MEDICAL LABORATORY SPECIALISTS)

Other challenges arise in countries where patients are used to obtaining their laboratory testing directly from non-medical laboratory specialist. First, the patient is not interested in the result of a certain laboratory test (7) but wants to know what (medical) consequences of the test results incur to him. In general, test results without medical interpretation are without use and therefore, it would be unethical to offer laboratory testing without qualified medical post-analytical interpretation (9). In this setting, the patient's safety would rely primarily on the medical knowledge and medical skills of the non-medical laboratory specialist, an obvious oxymoron.

Second, except for saliva and urine testing, invasive sampling (like phlebotomy or bone marrow puncture or spinal tap) precedes the testing process and for this sampling a physician's supervision or even the direct sampling by the physician is mandatory. The definition of the skills necessary for a laboratory manager in such countries is challenging. In particular, legal issues make it nearly impossible to impose universal definitions for the necessary skills. To hit on an expedient, one might define a limited setting in which non-medical laboratory specialist which have been proven to possess the necessary knowledge and skills are allowed to run a specialized laboratory (such as running a laboratory with basic clinical chemistry tests only, doing capillary blood counts only, doing malaria smears only). The situation is similar to regulations in which a registered nurse is allowed to perform a small spectrum of medical services such as performing vaccinations or prescribing certain drugs.

CONCLUSIONS

In the last decades, a high level of standardization of the tests used in the clinical laboratory was accomplished. Together with improvements of the IVD vendors, less effort is needed now for the analytical processes than previously. As a consequence, the skills of the Clinical Pathologists have to focus more on the fundamental contents of the Medical Act, i.e. the diagnosing and the counseling of physicians and patients. This has to be reflected by ongoing adoption of the syllabus for post-graduate education in Clinical Pathology as well as of life-long learning by CPD-CME programs to ensure high standards and achieve the patients' wellbeing.

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CHAPTER 4

Are Standards Helpful for Good Leadership in the Medical Laboratory?

MATTHIAS ORTH

LEARNING OBJECTIVES

1. To define and describe the role of standards
2. To describe the role of guidelines in medicine
3. To understand the procedure for how technical standards are developed
4. To compare the benefits and drawbacks of technical standards and guidelines
5. To understand the advantages of developing national and supranational guidelines by medical and scientific institutions

KEY QUESTIONS

- What is the legal background of a laboratory manager to use a certain technical standard in a medical laboratory or to use “best-practice” guidelines instead?
- Are there arguments that a technical standard might have negative effects on patient health?
- Are medical guidelines better suited to be used in medicine instead of technical standards?
- Which parts of healthcare cannot be covered by technical standards?
- How are standards related to evidence-based medicine (EBM) and best practice?

CHALLENGE OF STANDARDS IN LABORATORY MEDICINE

Standards are often used in laboratory medicine to achieve comparable results among different laboratories. Many initiatives to increase quality in the medical laboratory also rely heavily on standards. However, there are possible drawbacks if the emphasis is put only on standards and less on the skills of the personnel working

in the laboratory.

DEFINITION OF STANDARD

A technical standard is an established norm or requirement concerning technical systems. It is a formal document that establishes uniform engineering or technical criteria, methods, processes, and practices. When a company product is frequently used, it might become generally accepted and dominant and is often called a *de facto* standard.

A technical standard may be developed privately or unilaterally, for example by a corporation, regulatory body, military, etc. Standards can also be developed by groups such as trade unions or trade associations. The standardization process may be by edict or may involve the formal consensus of technical experts. Standards are voluntary but might become mandatory if adopted by a government (i.e. through legislation), business contract, etc.

In contrast to a standard is the concept the Best Practice. This is a *de facto* level of performance such as in engineering and information technology. It is more flexible than a standard since techniques and tools are continually evolving. Unlike standards, Best Practice is mainly unavailable as a formal document.

DEFINITION OF MEDICINE/HEALTHCARE

Practicing medicine is an exercise of the profession by which medical knowledge is used and applied. Thus, practicing healthcare requires the necessary professional skills, qualifications, and compliance with the accepted state of medical knowledge. The task of physicians is to preserve life, protect and restore health, alleviate suffering, support the dying and participate in the preservation of the natural foundations of life with regard to their importance for human health. Therefore, healthcare services must, however, categorically be regarded as complex interventions.

DRAWBACKS OF STANDARDS IN HEALTHCARE

Medicine is a rapidly evolving scientific discipline. However, medicine is often not an exact science and at times requires some educated guesswork on the part of physicians and laboratories. The primary objective of standardization is the methodical, collaborative achievement of uniformity of tangible and intangible goods. Standards lack flexibility and due to a prolonged voting process might be outdated at the time of usage.

QA in healthcare relies on the state-of-the-art (or best current practice) in medical science and technology and thus relies on the principle of evidence-based medicine and medical guidelines. The primary intentions behind this are to protect patients, provide assurance for the physicians treating them and to ensure high-quality healthcare, bearing in mind the individual physician-patient relationship as well as the therapeutic discretion of the physician.

Healthcare is different from a trade or other services: The patient is someone who is suffering and is requesting help with highly private concerns, even with life-and-death questions and touching on existential fears. Therefore, therapy and attention have to be based on trust of the patient that he will receive the correct diagnosis and adequate treatment. Trust is in many cases not only based on a trust in a whole institution such as a medical laboratory as a whole or even a health maintenance organization: In many patient encounters (see below), trust in a particular person in the laboratory can be essential for many patients.

Physicians have an individual-specific task covering diagnosis as well as therapy, prevention, and follow-up care. When medical literature refers to individualized medicine today, usually a distinction is made between a more person-oriented and a more technically-oriented variant. Many parts of laboratory medicine can be substituted under technically oriented medicine [1] but many parts of the tasks performed in a medical laboratory should be named person-oriented medicine. Therefore, the laboratory manager also should have the skills to handle the individual, patient-specific assignments.

Service standards do not provide the necessary scope of action adapted to the individual patient. This refers to services for which it is absolutely necessary for the provider and the consumer to work together. Laboratory medicine often is a more technically-oriented practice from the perspective of the patient's sample when being tested. Practicing medicine in most situations is possible even when the patient is not present and one essential part of healthcare, the direct interaction of provider and consumer, is of little importance. Still, considerable personal, spatial, and sometimes also temporal preferences are necessary for other situations in laboratory medicine: This means that a provider cannot be replaced easily by another because an important role is played here by subjective factors such as sympathy and antipathy, a particular relationship of trust and the like. These subjective factors prevail on both sides in the relationship between physician and patient.

STANDARDIZATION IN LABORATORY MEDICINE

Standardization resulting from unification of diverse procedures or requirements of a product in a formalized process such as the standardization and harmonization of pre-pre-analytics (terminology, testing profiles, testing intervals), pre-analytics (time of sampling, patient preparation, transport and storage of samples), analytics (sample quality, method, calibrator, QA) up to post-analytics (units, data format, reference intervals, decision values) can provide patient safety and quality in laboratory analytics. In fact, the uniformity in the analytical process makes a comparison of laboratory values possible even if they were determined in different

[1] "Person-oriented medicine primarily relies on medical knowledge and skills for diagnosis and therapy, whereas technically oriented medicine predominantly offers the services of the highly developed areas of laboratory diagnostics, medical imaging and surgical interventions." Bircher J, Wehkamp KH (2006): Das ungenutzte Potential der Medizin – Analyse von Gesundheit und Krankheit zu Beginn des 21. Jahrhunderts. Rüffer & Rub, Zürich, p. 89

laboratories in different countries. In this context, standardization can contribute to patient safety. However, the interpretation of the laboratory values is based on competence and depends on the physician (Clinical Pathologist), his experiential knowledge and the reference to the specific patient.

This, inherently, is a contradiction to standardization. The strengths of standards are their abstract universal specifications, whereas their weaknesses and limits are reached every time when information or specifications have to be interpreted and assessed individually. A challenge in laboratory medicine is the high number of available standards. Typical standards used in medical laboratories are from International Organization for Standardization and include ISO 15189, ISO 17025 and ISO 17020. Regulation concerning adherence to standards vary from country to country and some content of different standards can be incongruent. Extensive practical skills and theoretical knowledge, as well as legal knowledge, are necessary from the laboratory manager in selecting appropriate standards and in avoiding inappropriate standards to guarantee the patients' safety. In particular, when the patients' wellbeing has been endangered, a standard might sometimes be referred to when interpreting, for example, the vague legal term "due diligence".

Standards are developed in a formalized process by private organizations such as the German Institute for Standardization (Deutsches Institut für Normung, DIN) or the European Committee for Standardization (Comité Européen de Normalisation, CEN) or by ISO. The result of standardization or rather the process of standardization is the standard. A standard contains neither references nor is its assessment derived from the strength of evidence (in contrast to the process of establishing medical guidelines). The standards prepared by these private (supra-) national institutions are regarded as voluntary recommendations after they have been adopted by all countries involved. Thereafter, standards are sold by the abovementioned institutions or organizations.

STANDARDS VERSUS MEDICAL GUIDELINES

The primary objective of clinical practice guidelines is to safeguard medical care, always based on the current state of the art. The recommendatory nature of clinical practice guidelines takes into account the physician's duty to treat patients according to the accepted state of medical knowledge as well as the patients' right of self-determination when medical procedures are to be administered

In particular, because of the methodology used in developing the two systems of regulations, there is a risk of contradiction between a guideline and a standard. This is because the group consensus on a wording agreed upon represents the essential basis for the establishment of a standard, whereas in the case of a guideline a systematic search and evaluation of the literature (external evidence) combined with clinicians' experiential knowledge present in the group developing the guideline (internal evidence) forms the basis of the recommendation (guideline).

The juxtaposition between clinical practice guidelines and standards demonstrates

that in particular regarding a physician's genuine medical activity, standards are neither a necessary nor a suitable tool for ensuring or improving the quality of the medical services.

While standards being of indispensable value when used as a technical specification, standards are not applicable to healthcare as a whole, including laboratory medicine. Standardization in this field leads instead to legal uncertainty and considerable friction with national regulations governing the profession and with liability law. Standards are useful for the harmonization of analytical processes in the laboratory. However, when information or specifications have to be interpreted and evaluated on an individual basis such as in the selection of suitable lab tests or in the interpretation of laboratory test results for a certain patient, standardization such as by ISO standards is not a suitable regulatory instrument. (Supra-) national clinical practice guidelines are better suited to support these tasks and to improve patients' outcome.

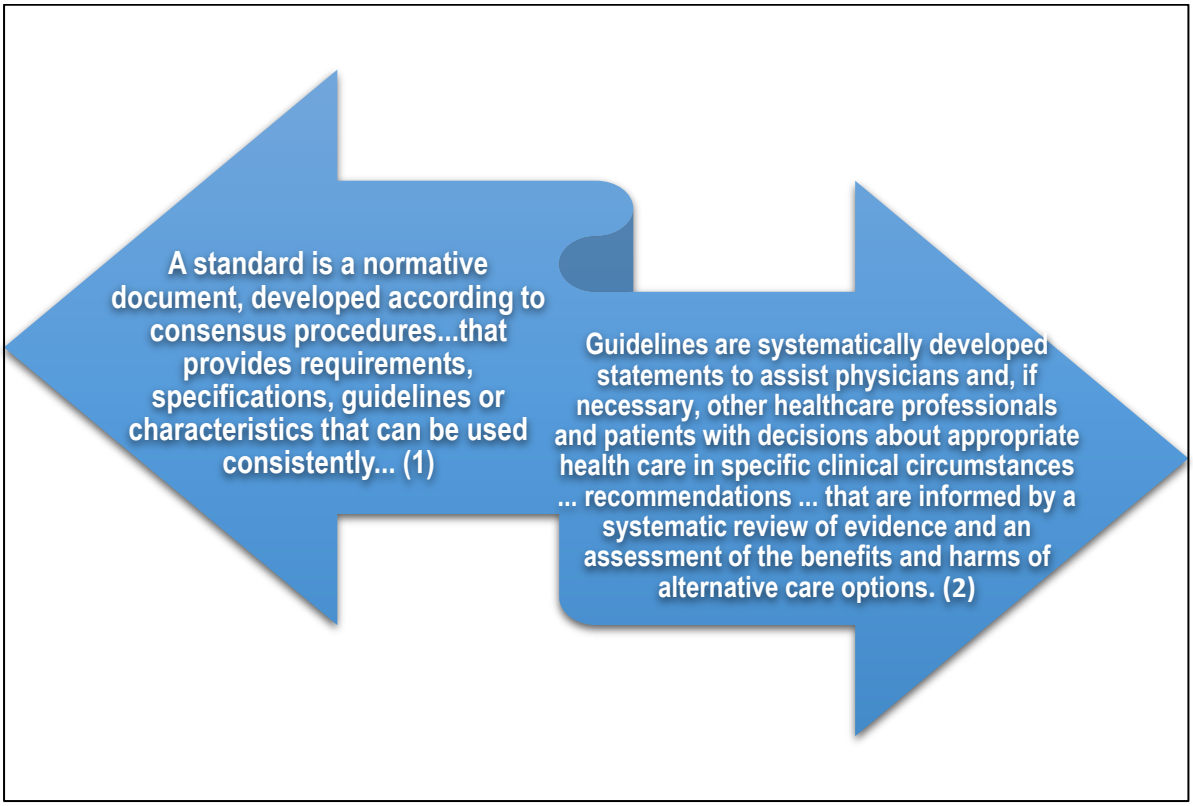

Figure 4.1 ISO: What is a standard?[2]

[2] Available at http://www.iso.org/iso/home/standards.htm right: Institute of Medicine (2011). Accessed on 01.03. 2017. Clinical Practice Guidelines We Can Trust. Washington, DC: The National Academies Press.

TOTAL QUALITY

A drawback of standards and medical guidelines is the more passive role of the medical laboratory: during audits, nonconformities are searched for and there is only very little incentive to improve the quality beyond the level of the standard or of the guideline applied.

Other quality systems such as total quality systems focus on the continuous and sustainable quality improvement of the organization from its inside. One example of a total quality system is the European Foundation for Quality Management (EFQM) Excellence Model which provides a holistic view of the organization and which can be used to determine how different management and quality models fit together and complement each other (2). The concept behind EFQM is an organization which by itself strives to improved quality e.g. to gain an advantage over competing "businesses", in our case of other laboratories. Quality becomes the driver of excellence and quality indicators are no longer only static roadblocks in the process of diagnosing and treating patients. An important element of EFQM is the frequent self-assessment of processes leading to improvements of the processes themselves as well as of the quality indicators used for the assessment.

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CASE STUDY & EXAMPLES

ESTABLISHING REFERENCE RANGES

Background: The laboratory has to ensure that the test results can be interpreted to the patient's best benefit.

CASE: The technicians complain that in a certain test (serum free light chains) too many patient results are flagged as being outside of the reference range.

The lab director has several options:

I. Ignore the complaints
II. Ask the distributor of the reagent for updated reference ranges
III. Perform a reference range study with 120 healthy blood donors (1, 2)
IV. Perform a short reference range verification study with 20 patients (1, 2)
V. Use data from routine tests done in the laboratory to calculate the reference range (3)
VI. Introduce IQCs and external quality assessment
VII. Switch to common reference intervals together with other laboratories in the area (4)
VIII. Use a combination of several methods (such as VI together with VII or II

together with VI).

In regard to leadership, in most situations, the decision depends on the specific situation (5). Unlike in a technical norm where the minimum requirement has to be reached, leadership in a medical laboratory has to deal with conflicting issues and the leader has to question the rationale behind each option and whether the option does solve the conflicting issues.

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CHAPTER 5

The Leader as Visionary and Motivator

SEDEF YENICE

LEARNING OBJECTIVES

- To explore what motivates employees
- To describe and compare the need-based theories of motivation
- To identify what external motivation and internal motivation are
- To provide a description of the six motivational outlooks
- To assess misconceptions about the optimal motivation
- To understand the strategies to enhance employee motivation and the appraisal process
- To define the work climate and explain its influence on staff performance

KEY QUESTIONS

- What is a leader's role in activating optimal motivation with others?
- How can supervisors influence a work group's climate?
- Which motivation theory offers the most value to laboratory leaders?
- What are the benefits of motivating staff?
- How the performance-motivation problems have to be analyzed?
- What are the indications/signs of low motivation and performance?
- What are the best ways for motivating the staff?
- Could you identify at least six exalting phrases to motivate staff?

WHAT İS MOTİVATİON?

Motivation is an enormous part of success in life. No matter what it is that we are doing, we have to have the proper motivation if we are going to succeed in the end. This applies to individual pursuits in our life, and it certainly applies to clinical laboratory management. For us as laboratory professionals, we have to think

carefully about what motivates our team members on a day-to-day basis. Is our team properly motivated, and what it is that motivates them in the first place?

Motivation is widely regarded as a psychological state that compels an individual to act toward a desired goal and elicits, controls, and sustains certain goal-directed behaviors. It can be considered a catalytic force or the energy to act upon or toward the desired goal. In fact, there are more than 100 definitions linked to the concept of motivation. But they share the same fatal flaw: They focus on the quantity of motivation a person has rather than the quality of motivation (1, 2).

Motivation results from the interaction of both conscious and unconscious factors such as the:

1. the intensity of desire or need,
2. incentive or reward value of the goal, and
3. the expectations of the individual and of his or her peers

These factors are the reasons one has for behaving a certain way. An example to the quality of motivation is a laboratory technician that spends extra time working for validation of a new analytical method because he or she wants to get better results of internal quality.

WHAT LEADERS AND INDIVIDUALS NEED TO UNDERSTAND ABOUT MOTIVATION—WHY IT MATTERS?

To motivate individuals, it is important to understand their needs. Effective leaders build and shape organizations that motivate their employees' minds, spirits, and actions.

People are always motivated. The question, therefore, becomes not **IF** but **WHY** they are motivated. What leaders can do is use best practices that promote a higher-quality motivation that sustains people's positive energy, vitality, and well-being, or what is called optimal motivation (1). Assessment of self-motivation is found in **Appendices D to E**.

THEORIES OF MOTIVATION

This section describes the theories that explain what motivates employees. This is a complex topic and different theories prioritize different factors. However, there are some common themes and knowledge of these theories can help you to lead in a way that develops and maintains enthusiasm among your laboratory team members. These include theories that focus on motivation being a function of;

1. employee needs,
2. extrinsic factors, and
3. intrinsic factors

Each set of theories is briefly discussed below.

Content theories focus on **WHAT** motivates, while process theories focus on **HOW** human behavior is motivated. Content theories are the earliest theories of motivation

and are also called "***needs***" theories. They try to identify what our needs are and relate motivation to the fulfilling of these needs. Process theories are concerned with "***how***" motivation occurs, and what kind of process can influence our motivation. No single motivation theory explains all aspects of motivation or lack thereof. Each theoretical explanation can serve as the basis for the development of techniques for motivating (3, 4).

NEED-BASED THEORIES OF MOTIVATION

Maslow's Hierarchy of Needs Theory

Abraham Maslow's hierarchy of needs theory defines a need as a physiological or psychological deficiency that requires satisfaction (Maslow, 1954) (5). While a satisfied need is not a motivator, an unsatisfied need influences behavior until it is fulfilled. Maslow's theory is based on two principles:

1. **Deficit principle** – a satisfied need does not motivate behavior since individuals work to satisfy unmet needs.
2. **Progression principle** – five main needs occur in a hierarchy.

Maslow's hierarchy comprises a five-tier model of human needs, often depicted as hierarchical levels within a pyramid. Those five needs, in order from bottom to top, are physiological, safety, belongingness, esteem, and self-actualization.

1. **Physiological** needs are the physical requirements for human survival including workplace, work hours, and comfort.
2. **Safety** needs include job security, work conditions, benefits, personal security, financial security, health, and well-being.
3. Humans need to feel a sense of **belonging** and acceptance among their social groups including co-workers, teams, leaders, and customers.
4. **Esteem** presents the typical human desire to be accepted and valued by others such as status, respect, responsibility, promotion, praise, and recognition. This level denotes the desire to accomplish everything that one can, to become the most that one can be.
5. When working in a job that has little to no limits on what can be accomplished, **self-actualization** will feel like an attainable goal and identified by challenge, flexibility, achievement, growth, opportunity, advancement, and creativity.

Maslow's theory suggests that the lower-level needs must be met before individuals will desire to move to higher-level needs. Leaders must recognize and understand the five levels of needs to build motivation in staff.

Alderfer's ERG Theory

Clayton Alderfer's ERG theory is formed on the basis of Maslow's hierarchy of needs but collapses five levels into three categories – existence, relatedness, and growth (6).

1. **Existence** – aspirations for material and physical well-being (includes Maslow's physiological and safety levels)
2. **Relatedness** – aspirations for fulfilling relationships (includes Maslow's belonging and esteem levels)
3. **Growth** – aspirations for development of capability, growth, or potential (includes Maslow's esteem and self-actualization levels)

Like Maslow's hierarchy, existence needs are considered the first level of needs and foundational to motivating behavior. As lower-level needs are satisfied, they become less important; but as higher-level needs are satisfied, they become more important. To increase staff motivation, leaders must ensure that individuals' lower-level needs are met (and no longer important), so that individuals have opportunities to achieve higher-level needs, such as relatedness and growth.

Herzberg's Two-Factor Theory

Herzberg's motivation-hygiene theory, also known as the two-factor theory, declares that there are certain factors in the workplace that cause job satisfaction, while a separate set of factors cause dissatisfaction and these factors act independently of each other (7, 8). The two factors are:

1. **Hygiene factors -** include job security, salary or pay, benefits, policies, relationships with supervisors and other employees, status within the department and/or organization and working conditions. While these factors do not directly motivate individuals, when not present or when taken away, they cause dissatisfaction and complaints. The key to eliminating dissatisfaction is to strip away as many of the frustrating and counterproductive elements out of the workplace as possible.
2. **Motivators -** as the factors that promote satisfaction include achievement, advancement, growth, responsibility, interesting work, and a feeling of recognition. When present, these factors directly motivate and satisfy individuals; however, when they are not present, there is discontent. Increasing satisfaction can best be achieved by recognizing the effort and spreading responsibility as much as possible including providing opportunities for professional development.

According to this two-factor theory, the two factors have four combinations:

1. High hygiene and high motivation – best situation; results in individuals who have few complaints and are highly motivated
2. High hygiene and low motivation – results in individuals who have few complaints, yet are not highly motivated
3. Low hygiene and high motivation – results in individuals who are dissatisfied, yet highly motivated
4. Low hygiene and low motivation – worst situation; results in individuals who are dissatisfied and not motivated

Since the absence of hygiene factors causes dissatisfaction and complaints, and

motivators cause satisfaction and high motivation, leaders must ensure that hygiene factors are in place and then strengthen individuals' opportunities to experience motivators.

McClelland's Acquired Needs Theory

David McClelland's acquired needs theory acknowledges that individuals prioritize three specific needs differently (9).

1. **Affiliation** – wish to form close, personal, friendly relationships
2. **Power** – desire to be in charge; to control and influence others' actions
3. **Achievement** – determination to accomplish something of importance; to excel

Leaders must build and shape an organization that maximizes its results and success based on recognizing and meeting the individuals' needs.

All four of these theories approach needs from a somewhat different perspective and assist us with perceiving employee motivation on the basis of needs. Intrinsic and extrinsic motivators are related to and impact each of needs-based motivation theories is described in **Figure 5.1** (10).

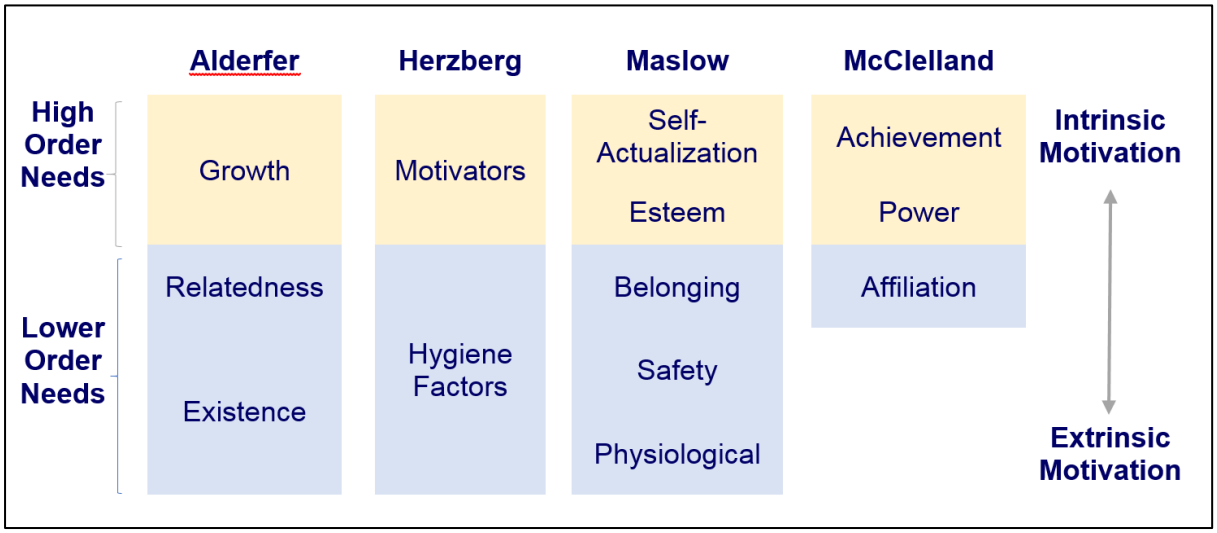

Figure 5.1. Comparison of Content Theories of Motivation

EXTRINSIC FACTOR THEORIES OF MOTIVATION

Reinforcement Theory

Reinforcement theory is the best-known of the extrinsic based theories. B.F.Skinner studied human behavior and proposed that individuals are motivated when their behaviors are reinforced (11). His theory was comprised of four types of reinforcement:

- Positive reinforcement – rewards positive behaviors
- Avoidance learning – rewards behaviors that avoid undesirable or negative behaviors

- Punishment – aims to reduce undesirable behaviors by creating negative consequences for the individual
- Extinction – represents the removal of positive rewards for undesirable behaviors

The reinforcement approach is criticized because it neglects the employees' abilities to think critically and reason, both of which are important aspects of human motivation.

INTRINSIC FACTOR THEORIES OF MOTIVATION

Each of the following theories deals with a different aspect of motivation. Each of these aspects come into are important to employee motivation at one time or another (3).

Adam's Equity Theory

Adam's Equity Theory proposes that individuals are motivated when they perceive that they are treated equitably in comparison to others within the organization (12).

Vroom's Expectancy Theory

Vroom's Expectancy Theory states that individuals select their behaviors based on the outcomes that they expect as a result of those behaviors (13). Expectancy theory is about the mental processes of choice. It explains that individuals can be motivated towards goals if they believe that there is a positive correlation between efforts and performance - the outcome of a favorable performance will result in a desirable reward that satisfies their need enough to make the effort worthwhile.

Vroom uses the variables of Expectancy, Instrumentality, and Valence to account for this. Expectancy is the belief that one's effort will result in the attainment of desired performance goals. Instrumentality is the belief that a person will receive a reward if the performance expectation is met. Valence is the value an individual place on the rewards of an outcome. This theory emphasizes the needs for organizations to relate rewards directly to performance and to ensure that the rewards provided are those rewards deserved and wanted by the recipients.

Locke's Goal Setting Theory

Locke's Goal Setting theory hypothesizes that by establishing goals individuals are motivated to take action to achieve those goals (14).

OTHER MANAGEMENT THEORIES OF MOTIVATION

McGregor's Theory X and Theory Y

McGregor's Theory X and Theory Y describe two contrasting models of workforce motivation that form the basis for two different managerial styles. Theory X stresses the importance of strict supervision, external rewards, and penalties. Its management style supposes that the average employee has little to no ambition, shies away from work or responsibilities, and is individual-goal oriented. Theory Y

highlights the motivating role of job satisfaction and encourages workers to approach tasks without direct supervision. Its management style supposes that people in the workforce are internally motivated; enjoy their labor in the work environment, and work to better themselves without a direct “reward” in return (3).

So, how should you proceed with your laboratory in terms of keeping your team members motivated and on track? It might be best to take a blend of the two approaches. With employees who fit into the motivated and self-reliant category, a hands-off approach is best. This might apply if you have a department, which is focused on being creative, such as your team members engaged in research studies. On the other hand, if you also have a routine clinical laboratory service or some other repetitive-task arena such as a phlebotomy unit, it is likely that the employees in that setting are not particularly driven on his or her own. So, with that part of the business, you may need to keep managers or supervisors in close contact with the subordinates at all times in order to keep operations on schedule (3).

It isn’t as simple as just saying that either Theory X or Theory Y is the ‘right’ theory. In reality, both can be right, given the circumstances, the employees in question, and the structure of the laboratory or department as a whole.

Ouchi’s Theory Z

Ouchi’s Theory Z is based on the Japanese approach to management and motivation, theory Z is rooted in the idea that employees who are involved in and committed to an organization will be motivated to increase productivity (15). The rewards provided can be long-term employment, promotion from within, participatory management, and other techniques to motivate employees.

Scientific Management Theory

This theory assumes that people are motivated and able to continually work harder and more efficiently and that employees should be paid on the basis of the amount and quality of the work performed. Over time, this way is limited by the capacity of employees to continue to increase the quantity of work without sacrificing the quality (3).

EXTRINSIC AND INTRINSIC MOTIVATION

An exploration of extrinsic and intrinsic motivation is required to answer: Why do we do the things we do? and What is it that drives our behaviors?

There are different ways of thinking about motivation. One involves looking at whether motivation arises from outside (extrinsic) or inside (intrinsic) the individual (**Table 5.1**; 10).

EXTRINSIC MOTIVATION

Extrinsic motivation occurs when we are motivated to perform a behavior or engage in an activity to earn a reward or avoid punishment. Examples of behaviors that are the result of extrinsic motivation include: Studying because you want to get a good

grade; Cleaning your room to avoid being reprimanded by your parents; Participating in a sport to win awards; or Competing in a contest to win a scholarship. In each of these examples, the behavior is motivated by a desire to gain a reward or avoid an adverse outcome.

INTRINSIC MOTIVATION

According to W Edward Deming "*People are born with intrinsic motivation, self-esteem, dignity, curiosity to learn, joy in learning*." Intrinsic motivation involves engaging in a behavior because it is personally rewarding; essentially, performing an activity for its own sake rather than the desire for some external reward.

Examples of actions that are the result of intrinsic motivation include: Participating in a sport because you find the activity enjoyable; solving a word puzzle because you find the challenge fun and exciting; playing a game because you find it exciting; or Performing extra tasks for patient safety and to improve patient care. In each of these instances, the person's behavior is motivated by an internal desire to participate in an activity for its own sake (16, 17).

EXTRINSIC VS INTRINSIC MOTIVATION: WHICH IS BEST?

External rewards can induce interest and participation in something in which the individual had no initial interest and can be used to motivate people to acquire new technical skills or knowledge in the laboratory. Once these early skills have been learned, people may then become more intrinsically motivated to pursue the activity. Those rewards can also be a source of feedback, allowing people to know when their performance has achieved a standard deserving of reinforcement.

Extrinsic motivators should be avoided in situations where the individual already finds the activity intrinsically rewarding, or if offering a reward might make a "play" activity seem more like "work".

While most people would suggest that intrinsic motivation is best, it is not always possible. In some cases, people simply have no internal desire to engage in an activity. Excessive rewards may be problematic, but when used appropriately, extrinsic motivators can be a useful tool. For example, extrinsic motivation can be used to get people to complete a work task or school assignment in which they have no internal interest (18, 19).

Table 5.1 Examples of Intrinsic and Extrinsic Situations

Intrinsic Motivation	Extrinsic Motivation
Ph.D. student X wants to learn about leadership skills because he/she likes to learn new information	Ph.D. student Y wants to boost his/her academic credits to be competitive for the department and career advancement
Once enrolled in the course, student X finds the course difficult but decides to stick with it	Student Y's family and advisor also forced and pressured him/her to take the certificated course in addition to other honors and academic courses
After taking the last module test, student X feels satisfied with their performance – not because of the grade, but because they gave it their best effort	Student Y works hard to achieve and receive a certificate of the course, but it only matters for the completion of credits
Student X retains most of the material after the course is over	Student Y forgets most of the material after the course is over

WHAT EXACTLY DO WE MEAN WHEN WE SAY EXTRINSIC OR INTRINSIC MOTIVATORS?

Cognitive evaluation theory (CET) of motivation indicates that there are two kinds of interconnected motivators for employees. Intrinsic motivators or rewards, coupled with extrinsic ones, lead to high personal satisfaction (20, 21) (see **Figure 5.2**).

Extrinsic rewards result from environmental factors and may serve as incentives for employees to increase their productivity. These include:

- Money - pay, bonuses, stock options, etc.
- Benefits - health insurance, vacation, sick leave, retirement bonuses, etc.
- Flexible schedules
- Job responsibilities and duties
- Promotions
- Change in status – changes in job titles, new or different job responsibilities
- Supervision of others
- Praise and feedback
- A good boss
- A strong leader
- Other inspirational people
- A nurturing organizational culture

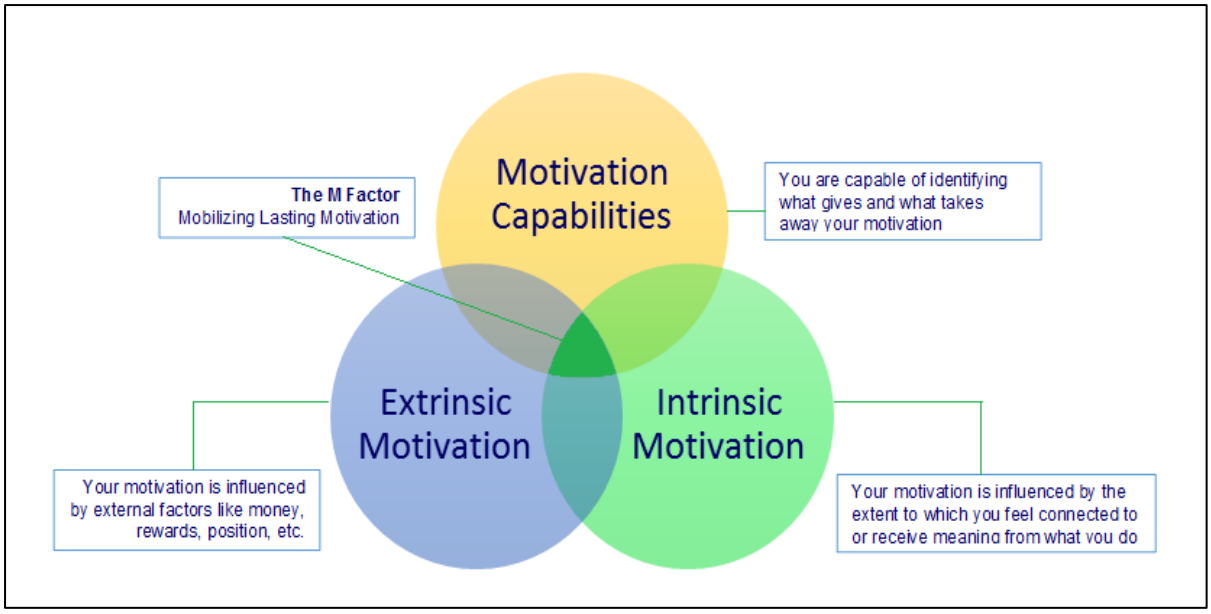

Figure 5.2 The motivation of employees resulting from a combination of two kinds of interconnected incentives that take the form of extrinsic and intrinsic rewards.

Intrinsic rewards are internal to the individual and result from the performance of an activity, including responsibility and achievement. While extrinsic rewards are all tangible types of rewards, intrinsic ones are in many ways less tangible. Five types of intrinsic rewards include:

- Healthy relationships – employees are able to develop a sense of connection with others in the workplace.
- Meaningful work – employees feel that they make a difference in people's lives. This is typically a motivator for individuals who are employed in the clinical laboratory disciplines.
- Competence – employees are encouraged to develop skills that enable them to perform at or above standards.
- Choice - employees are encouraged to participate in the organization in various ways, such as by expressing their views and opinions, sharing in decision making, and finding other ways to facilitate participatory approaches to problem-solving and goal setting.
- Progress – managers find ways to hold employees accountable, facilitate their ability to make headways towards completing their assigned tasks, and celebrate when progress is made toward completing important milestones within a project.

Researchers have arrived at three primary conclusions with regards to extrinsic rewards and their influence on intrinsic motivation:

- Unexpected external rewards typically do not decrease intrinsic motivation.

- Praise can increase internal motivation.
- Intrinsic motivation will decrease, however, when external rewards are given for completing a particular task or only doing minimal work.

The only way to do great work is to love what you do.

~ Steve Jobs

MOTIVATIONAL DRIVERS

Optimal motivation is the experience of satisfying one's psychological need for three motivational drivers: autonomy, relatedness (purpose), and competence (mastery) in the pursuit and achievement of meaningful goals that lead to positive and sustainable energy, vitality, and sense of well-being (**Figure 5.3**) (22).

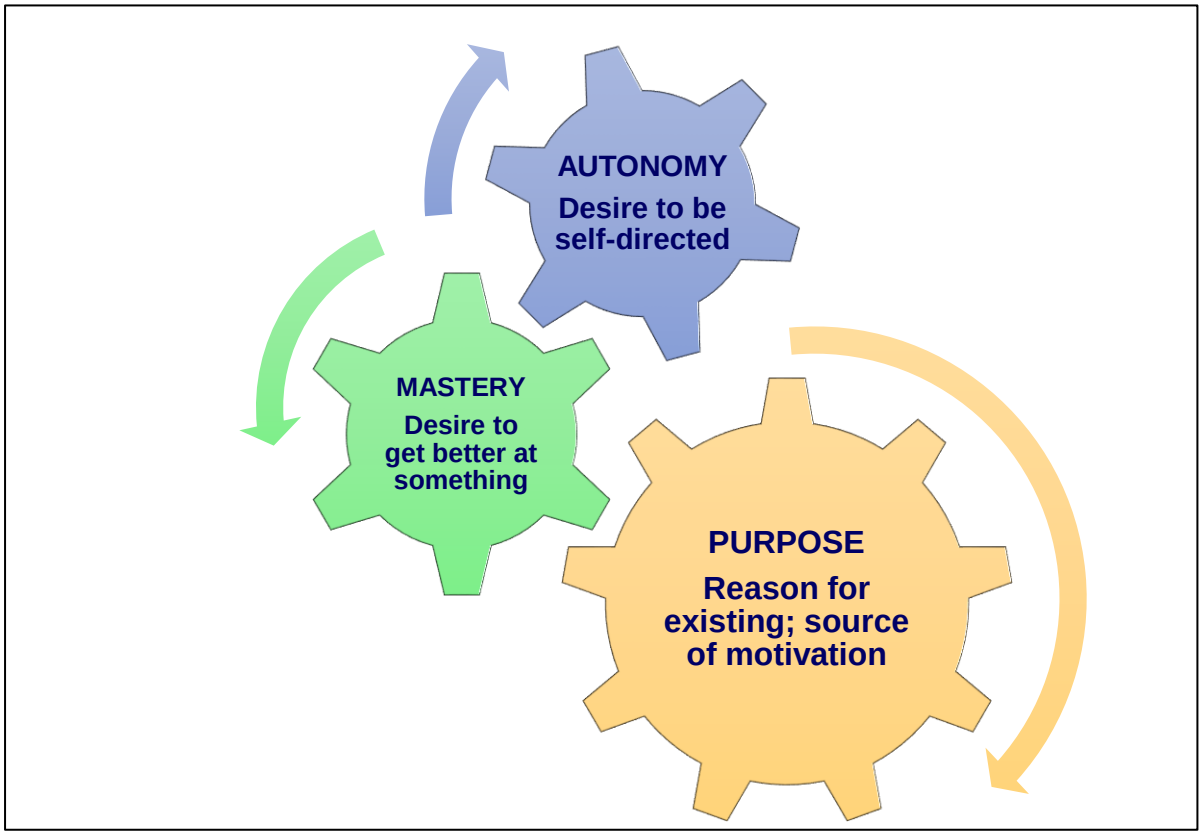

Figure 5.3 Motivational Drivers

LEADER'S ROLE IN ACTIVATING OPTIMAL MOTIVATION IN OTHERS

Motivation is not something leaders do to people. Despite a job description that may hold them accountable for motivating their people, leaders must recognize that individuals are already motivated; they are always motivated. The leader's role is to help individuals explore why they are motivated, uncover the reasons for their current motivational outlook, and then use best practices to help facilitate a shift to a

more optimal motivational outlook. But the final choice is theirs (17, 23). The spectrum of motivation model illustrates that optimal motivation relies on shifting from a suboptimal to optimal motivational outlook (**Figure 5.4**).

Research indicates that managers tend to have many misconceptions about motivation and there is a gap between the managers' efforts and the result they are getting. A 10-year study of more than 200,000 employees shows that 79% of employees who quit their jobs cite a lack of appreciation as a key reason, and according to Gallup's 2017 "State of the American Workplace" report, only 21% agree their performance is managed in a way that motivates them to do outstanding work (24).

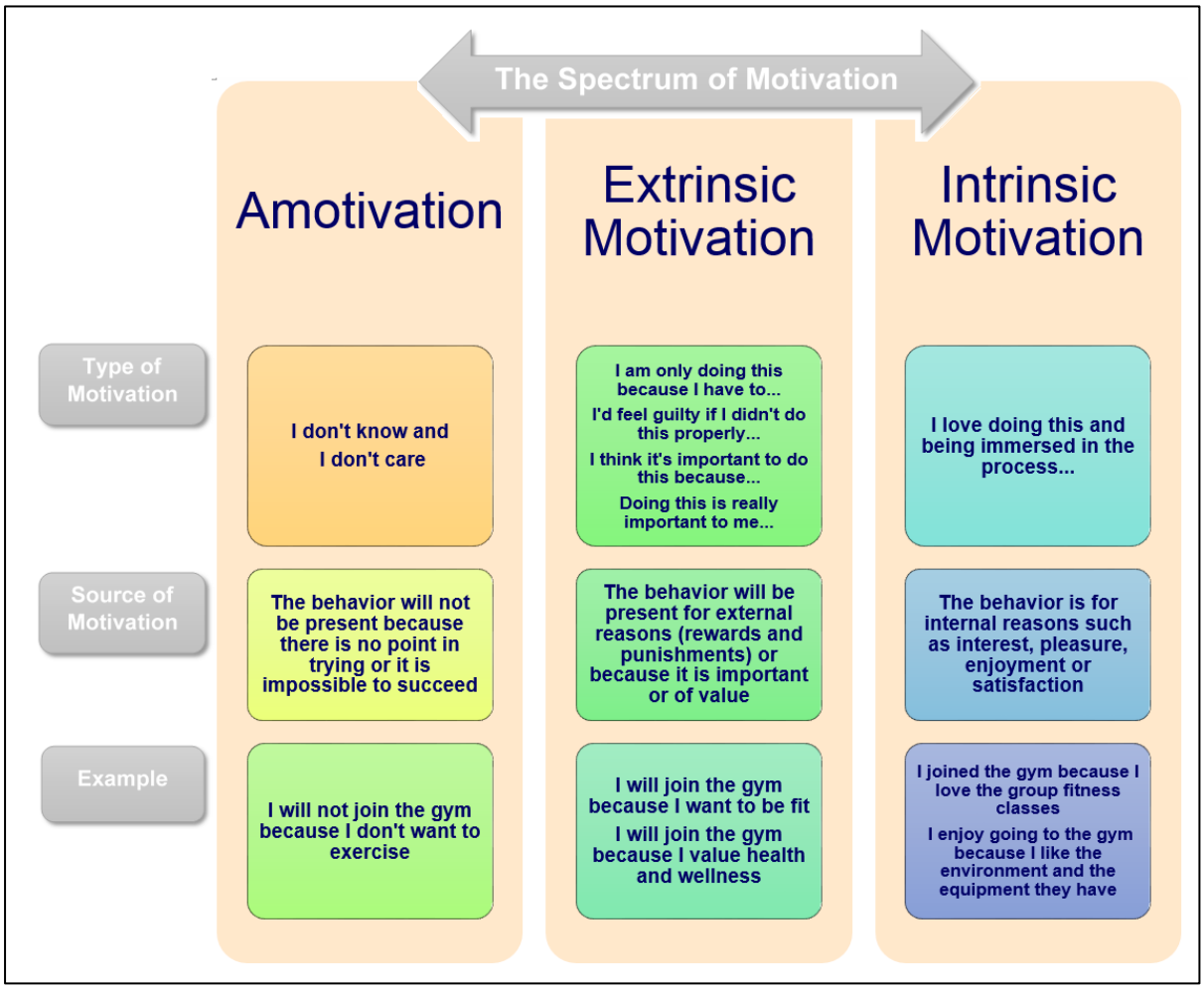

Figure 5.4 The spectrum of motivation

In fact, managers seem to consistently misunderstand what drives employee motivation. Many of these misconceptions (3) are depicted as follows.

- I am not motivated by extrinsic rewards, but others are – That is, individuals assume that others are driven more by extrinsic rewards than intrinsic ones. This has been shown to be a false assumption (25).
- All motivation is intrinsic – One has to remember that typically a combination of factors motivates employees, not just one type of extrinsic or intrinsic

reward (26).

- Some people just are not motivated (26).
- People are motivated by money - Money is the most expensive way to motivate employees, but it's still many leaders' first choice. Numerous studies, however, show that big bonuses are less effective than smaller, unexpected gestures because gifts create a relationship while bonuses are purely transactional.
- Motivation is manipulation – Manipulation purveys negative implications. In contrast, motivation is positive and benefits both management and the employee (26).
- One-size-fits-all reward and recognition programs - Motivation is not a one-size-fits-all concept. Rewards and recognition have to be customized based on understanding and focusing on the individual and his/her unique qualities. Motivation varies by personality type. Richard Bartle in 1996 identified four key player types in multiplayer game environments. In fact, each of the four player types has different types of motivations and can respond differently to the same situations and incentives. Understanding these player types provide insight that can improve the effectiveness of gamification in the business context. Bartle created a matrix that explored two dimensions: a dimension of "does the player think more about her environment or about other players?" and a dimension of "does the player act on, or does the player interact with?"(27). The answers to these questions resulted in a 2X2 matrix with four player types and are represented in **Figure 5.5**.

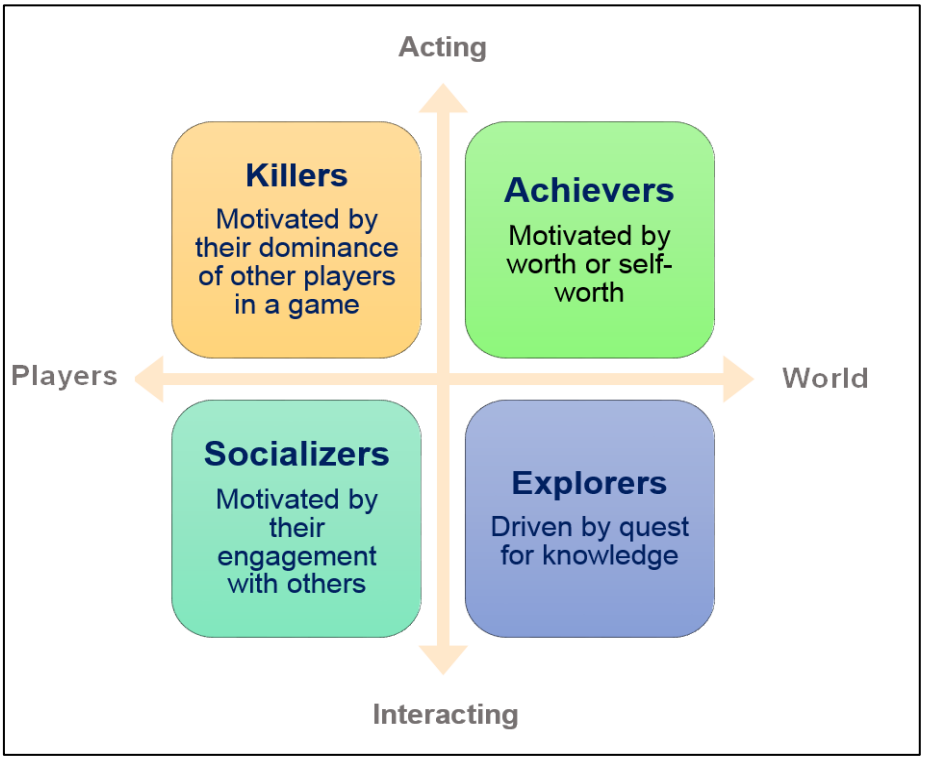

Figure 5.5 Interest Graph of Four Different Player Types

- Motivational people are born, not made - When people choose for themselves what to do instead of just being told, social-science research shows, they are more committed to the outcome by a factor of almost five to one. So although as a leader you likely feel a responsibility to explain your views, you'll do better by asking people questions that will help them reach their own conclusions about how to improve. David Farr, CEO of Emerson Electric, is noted for asking every employee a short list of questions such as "How do you make a difference?" "What improvement idea are you working on?" and "When did you last get coaching from your boss?" (28). Together, the answers help employees discover how their role links to the overall department direction, put a sharp focus on continuous improvement and highlights how much coaching and development is valued by the organization — all crucial in times of change.
- There is one kind of employee satisfaction – Atchison suggests that in the short run employees respond to specific rewards that they receive personally, but in the long run they respond to the quality performance of the team and the organization. Thus, they migrate from a "me" to a "we" mentality (29).

Table 5.2 The best practices that leaders must do to help individuals activate.

What doesn't work	What works	How to Do it
Apply pressure; Demand Accountability	Encourage Autonomy	• Invite choice; illuminate boundaries; explore options within boundaries • Present goals and timelines as valuable information necessary for achieving agreed-upon outcomes • Help reframe goals as relevant
Ignore feelings	Deepen relatedness	• Show empathy and caring; acknowledge and validate people's emotions • Offer pure and informational feedback rather than personal or evaluative praising • Share information about yourself and the organization; discuss your intentions openly
Discount learning	Develop competence	• Emphasize learning goals, not just performance goals • Ask, "What did you learn today?" • Provide training and appropriate leadership style for the person's level of development
Enable sabotaging behaviors	Promote mindfulness	• Encourage self-reflection • Ask open-ended questions that illuminate options • Facilitate the generating of options and alternative implementation strategies
Rely on power	Align with values	• Help individuals align goal to their work-related value(s) • Explore natural interest in and enthusiasm for the goal • Recognize mistakes as part of learning and growth

Focus on metrics without meaning	Connect to purpose	• Help individuals connect the goal to their work-related or life purpose • Frame actions in terms of the welfare of the whole; focus on contribution to the greater good • Provide rationale and big picture

We do not have to forget the good stuff. Focusing on problems tends to create fatigue and resistance, many studies have shown, whereas looking for opportunities to build on strengths leads to inspiration and motivation. This doesn't mean ignoring problems. But it does mean that the rational idea of pointing out to employees just how bad things are doesn't work. Instead, focus on how your organization's or individuals', strengths can be used to overcome your challenges (28).

Hence, activating optimal motivation is far more than a feel-good proposition for individuals and organizations. It provides a pragmatic and skill-based framework and course of action. The worst and best practices presented in **Table 5.2** below are proven techniques formulated from research in organizational, nonprofit, and educational settings worldwide that leaders must do or not do in order to manage employees' motivation (30).

MOTIVATIONAL STRATEGIES

To take full advantage of the science of motivation, leaders need to understand that they cannot motivate anyone. What they can do is shape a workplace where people are more likely to experience optimal motivation at work.

Leaders who successfully move from mere motivation to the dedication that sustains the optimal outlook go through the three stages summarized in **Table 5.3** (31). Sustaining high-quality motivation as a strategic capability creates a magnet for talent. By asking themselves "**What do I want for my people?"** rather than "**What do I want from them?"** leaders can create a dynamic culture shift.

An array of strategies can be used by leaders to analyze performance-motivation problems (32) (**Figure 5.6**). Thus, motivating individuals by way of implementing those strategies likely produce the following benefits:

1. Reduce costs and turnover
2. Increase individuals' satisfaction
3. Increase quality, productivity, customer satisfaction
4. Provide an environment to ensure strategies are successful
5. Provide a collaborative environment and a sense of belonging, thereby;
    - Increase the success of an organization's strategies and metrics
    - Increase focus, attention, energy toward organizational goals

Table 5.3 The strategy for sustaining optimal motivation comprises three stages

Stage	Strategy
1. Intention Formation	• Identify opportunities, describe the task or goal - the current Motivational Outlook by recognizing and understanding how one's psychological needs for Autonomy, Relatedness, and Competence are being satisfied. • Create an emotional link • Visualize the intention
2. Crossing the Rubicon (crossing the point of no return)	• Deal with doubts and anxieties - use self-regulation Mindfulness, Values, and Purpose-shifting strategies. • Exercise conscious choice • Take personal responsibility
3. Intention Protection	• Control the context - reflect on the shift, noticing the difference between having a suboptimal and an optimal Motivational Outlook. • Regulate cognition - Reflect on the key reasons for shifting (or not shifting) • Manage emotions • Protect self-confidence - Reframe the task or goal

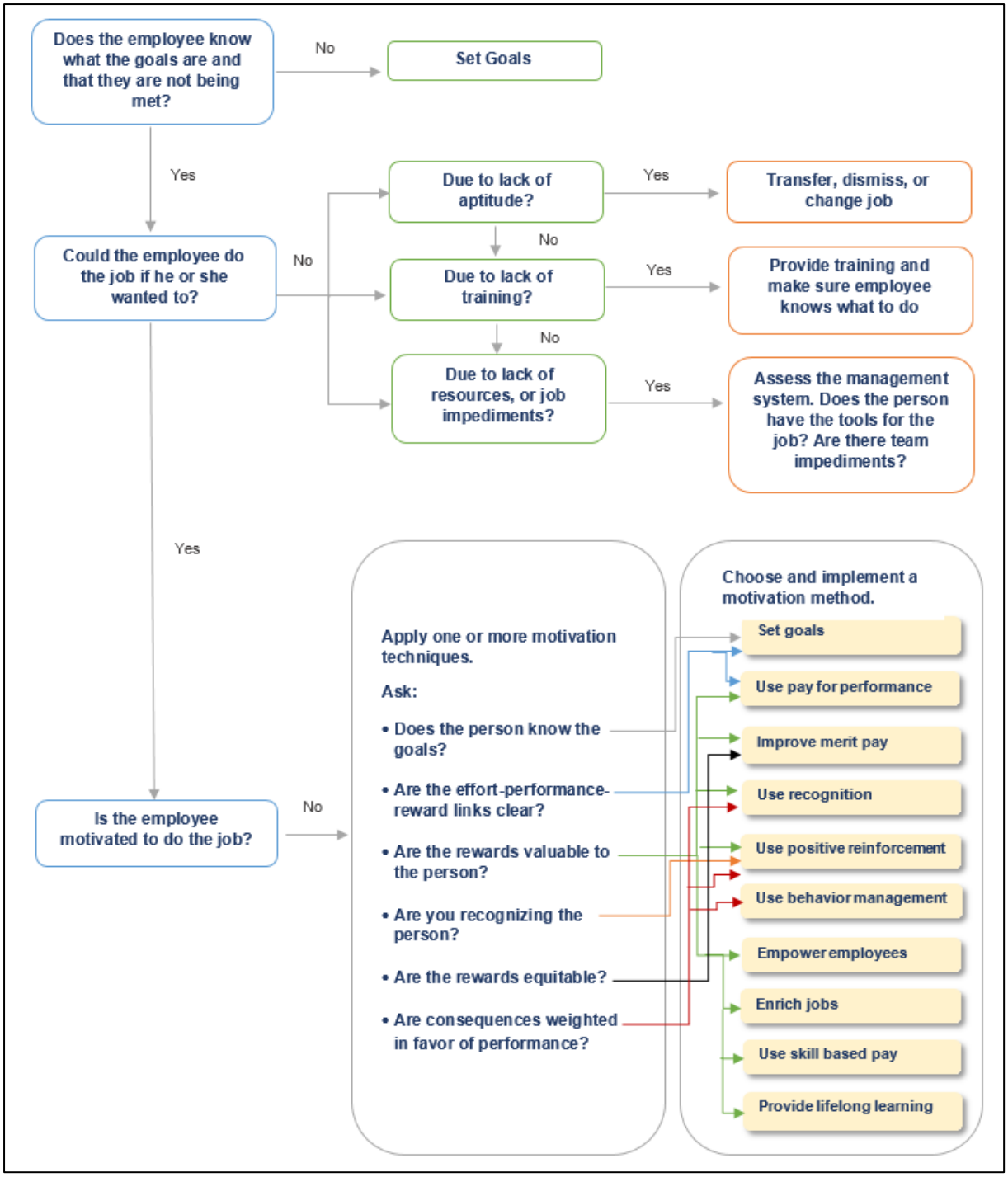

Figure 5.6 A flowchart of strategies to analyze performance-motivation problems.

At some point, every leader has dealt with a person — or, worse, a group of people — who have unmotivated (33). There are a number of indicators of low motivation and performance (**Table 5.4).**

Table 5.4 Indicators of Low Motivation and Performance

Signs	Complaints
• Absenteeism and tardiness (delay beyond the expected or proper time)	• "This place is so disorganized. We don't know what direction we are going in. Today, one task has high priority, but tomorrow a different task has priority.
• Decreased productivity	• "We are asked to produce results, but we don't have support or necessary resources.
• Disengagement and inflexibility of work habits	• "No one appreciates our work. No one says thank you."
• Dissatisfaction among clients	• "We get plenty of criticism when things go wrong, but rarely any positive feedback.
• Failure of a workgroup to meet specific performance targets	• "Things are tense and unpleasant. Our supervisor just barks at us. Sometimes I wish I didn't have to go to work.
• Frequent or unresolved conflict among staff	
• Poor communication among group members and with you as a leader	
• Staff resistance to new processes and ideas	

As much as we've been there ourselves, sometimes it's hard to sympathize with others who are disengaged from work and unproductive as a result. Although it's easy to fall into this mindset as a leader, this type of thinking is counterproductive and it ignores the underlying reasons why people lose their passion for what they do (or never find it to begin with). Dan Cable identifies a part of our brains as the seeking system that creates the natural impulses to learn new skills and take on challenging but meaningful tasks (34). And, when our seeking systems are activated, we feel more motivated, purposeful, and zestful. We feel more alive. Exploring, experimenting, learning — this is the way we're supposed to live and work. The problem is, too many workers aren't able to partake in these activities because the way our organizations are run is preventing them from doing so. It is possible for leaders to activate their employees' seeking systems without a great overhaul of organization-wide policies and culture.

There are three small but consequential nudges that trigger employees' seeking systems: encourage them to play to their strengths, creating opportunities to experiment, and helping them personalize the purpose of the work.

Self-Expression: Leaders can help employees be their best selves without changing the frames of their jobs. Employees want to be valued for the unique skills and perspectives they bring to the table, and the more you can re-enforce this, and remind them of their role in the company at large, the better.

Experimentation: A second way to activate people's seeking systems is to create an experimental "safe zone" that includes play and supportive social bonding. Play not only stimulates the seeking system, but it also pushes anxiety and fear back into its place.

Purpose: The feeling of purpose doesn't only come from curing diseases and improving the world. The feeling of purpose also ignites when we can see the cause and effect between our inputs and our team's progress. For example, sense of purpose soars when we can offer insights to our team about the environment and what might work better. Likewise, we feel a sense of purpose when we can experience firsthand how our unique contributions help other people and allow the team to progress. Purpose works best when employees get to interact directly with the people they are affecting with their work. For example, employees at Microsoft are encouraged to spend time out with clients, understanding their problems and issues first hand (34).

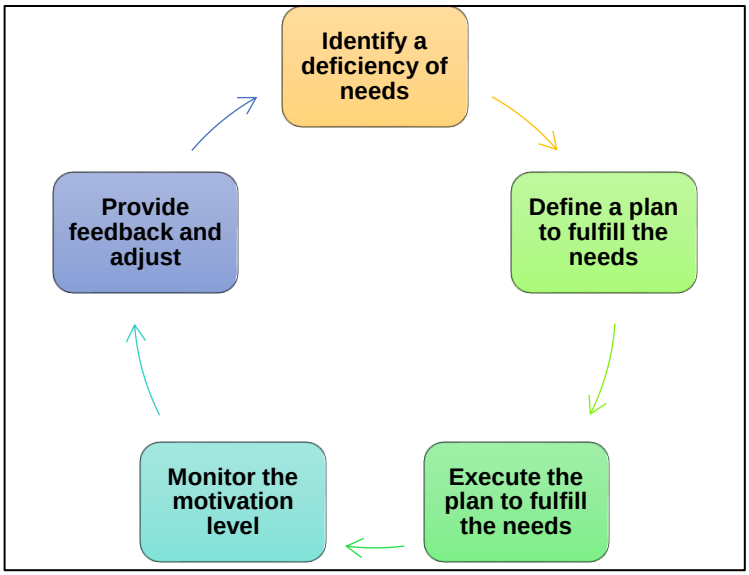

Figure 5.7 displays the Motivation Cycle (20).

THE APPRAISAL PROCESS

This appraisal process is at the heart of Employee Work Passion, a higher-order form of engagement in which the individual performs above expectations, uses discretionary effort on behalf of the organization, endorses the organization as a great place to work, acts in ways that are altruistic toward stakeholders, and remains with the organization.

When individuals understand their appraisal process, they can manage it. When leaders understand the appraisal process, they can facilitate their people to manage it more effectively (**Figure 5.8**). The means for managing one's appraisal process is through the skill of motivation—a skill with the potential to revolutionize the way organizations approach their employee engagement initiatives (30).

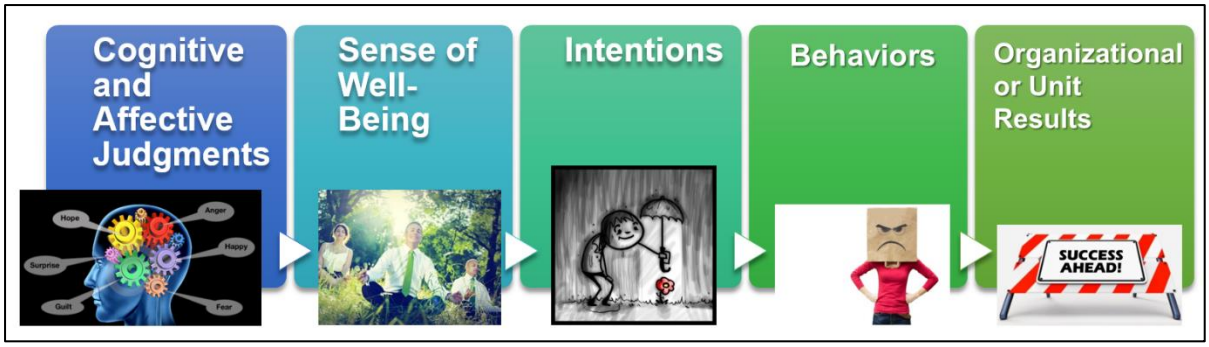

Figure 5.8. The management of the appraisal process.

Top 10 Ways to Motivate Staff

1. Personally Thank
2. Meet and Listen
3. Provide Specific and Frequent Feedback
4. Recognize, Reward, and Promote High Performance
5. Keep Staff Informed
6. Involve Staff in Decision Making
7. Encourage to Learn New Skills and Develop
8. Create a Partnership with each Employee
9. No Blame, No Shame. Be Open and Built Trust
10. Celebrate Successes

"People often say that motivation doesn't last.

Well, neither does bathing – that's why we recommend it daily." -

Zig Ziglar

12 Most Exalting Phrases Leaders Share with their Teams (35)

1. You were right about…..
2. I'm glad you are here
3. I trust you
4. You earned it
5. Let's have some fun
6. I believe in you
7. That is interesting
8. How can I help?
9. What do you think?
10. Come on in

And once is never enough. Motivation doesn't last forever. Zig Ziglar says it's a lot like showering in that respect…..that's why he recommends it often!

Ten Major Aspects of Climate and Culture (36)

1) Everything that happens in organizations is a result of climate and culture and everything that happens affects climate and culture.
2) Climate and culture are reciprocally related.
3) Climate and culture are multilevel phenomena.
4) Climate and culture are differentiated phenomena.
5) Organizations have multiple foci for climates and cultures.
6) Organizational culture and climate emerge and can change over time.
7) Leadership is central to climate and culture formation and maintenance.
8) Climate and culture emerge from systems of stimuli.
9) Climate and culture are measurable.
10) Climate and culture can yield a competitive advantage.

Work climate is the prevailing workplace atmosphere as experienced by employees. It is what it feels like to work in a place (36). **Figure 5.9** demonstrates an Integrative Model for the Organizational Climate of Staff Working Conditions and Safety. There are six dimensions to determining whether your organizational climate is set up for success with keeping employees motivated and engaged (37, 38) (**Figure 5.10**).

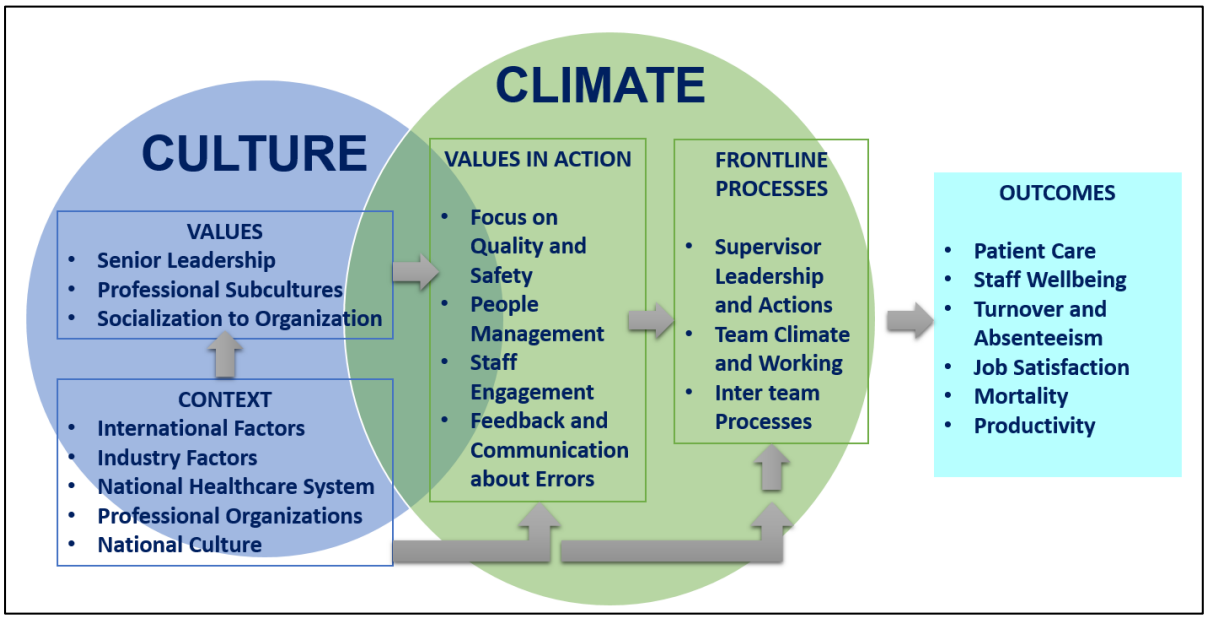

Figure 5.9. An integrative model for the organizational climate

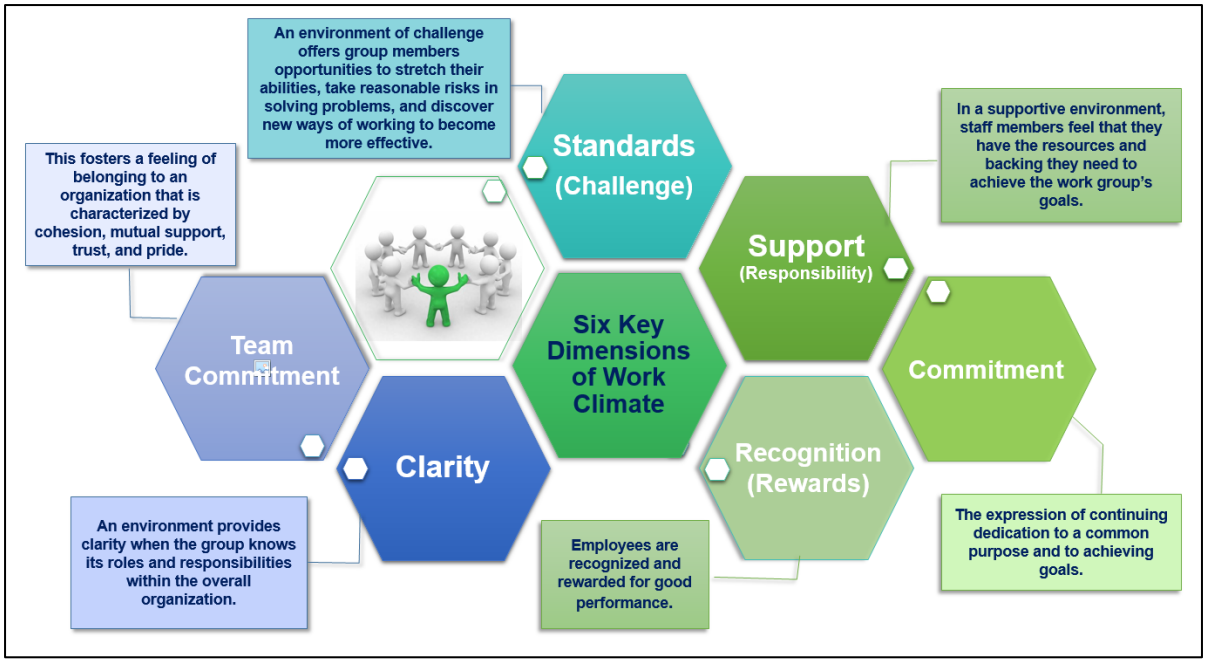

Figure 5.10 Six dimensions of work climate

WORK CULTURE, PERFORMANCE, AND EMPLOYEE MOTIVATION

After surveying over 20,000 workers around the world, analyzing 50 major companies, conducting scores of experiments, and scouring the landscape of academic research in a range of disciplines, McGregor and Doshi published the findings that lead to one conclusion: *Why we work determines how well we work* (39). Academics have studied why people work for nearly a century, but a major breakthrough happened in the 1980s when professors Edward Deci and Richard Ryan from the University of Rochester distinguished the six main reasons why people work (17, 18). They built on their framework and adapted it for the modern workplace. The six main reasons people work are play, purpose, potential, emotional pressure, economic pressure, and inertia. The work of many researchers has found that the first three motives tend to increase performance, while the latter three hurt it. They found that the companies most famous for their cultures from Southwest Airlines to Trader Joe's maximize the good motives while minimizing the bad ones.

The **play** is when you are motivated by the work itself. You work because you enjoy it. A teacher at play enjoys the core activities of teaching — creating lesson plans, grading tests, or problem-solving how to break through to each student. The play is our learning instinct, and it's tied to curiosity, experimentation, and exploring challenging problems.

The **purpose** is when the direct outcome of the work fits your identity. You work because you value the work's impact. For example, a teacher-driven by purpose values or identifies with the goal of educating and empowering children.

Potential is when the outcome of the work benefits your identity. In other words, the work enhances your potential. For example, a teacher with potential may be doing

his job because he eventually wants to become a principal.

Since these three motives are directly connected to the work itself in some way we can think of them as direct motives. They will improve performance to different degrees. Indirect motives, however, tend to reduce it.

Emotional pressure is when you work because some external force threatens your identity. If you've ever used guilt to compel a loved one to do something, you've inflicted emotional pressure. Fear, peer pressure, and shame are all forms of emotional pressure. When you do something to avoid disappointing yourself or others, you're acting on emotional pressure. This motive is completely separate from the work itself.

Economic pressure is when an external force makes you work. You work to gain a reward or avoid a punishment. Now the motive is not only separate from the work itself, but it is also separate from your identity.

Finally, **inertia** is when the motive is so far removed from the work and your identity that you can't identify why you're working. When you ask someone why they are doing their work, and they say, "I don't know; I'm doing it because I did it yesterday and the day before," that signals inertia. It is still a motive because you're still actually doing the activity, you just can't explain why. These indirect motives tend to reduce performance because you're no longer thinking about the work you're thinking about the disappointment, or the reward, or why you're bothering to do it at all. You're distracted, and you might not even care about the work itself or the quality of the outcome.

McGregor and Doshi found that a high-performing culture maximizes the play, purpose, and potential felt by its people and minimizes the emotional pressure, economic pressure, and inertia (39). This is known as creating **total motivation (ToMo)**.

So, what processes in an organization affect motivation? Number one is the **Culture**. In a high-performing culture, those processes maximize total motivation. Chapter 6 indicates more detail related to workplace culture. The measurement on how different processes affect employees' total motivation reveals a couple things: many processes affect people's ToMo at work including role design, organizational identity, career ladders, community, workforce, and resource planning, leadership, compensation, adaptive governance processes, and performance review. Some companies make special efforts to design a highly motivating role. Toyota encourages play by giving factory workers the opportunity to come up with and test new tools and ideas on the assembly line. W. L. Gore & Associates gives people free time and resources to develop new ideas. And Southwest Airlines encourages their people to treat each customer interaction as play.

The next most sensitive element is the **identity** of an organization, which includes its mission and behavioral code. For example, Medtronic enables its engineers and technicians to see the medical devices they've made in action so that

they can see the purpose of their work. The UCB Pharmaceuticals started inviting patients to executive meetings, so the people making decisions can see how their work makes a difference.

The third most sensitive element is the **career ladder** in an organization. Recently, many companies have concluded that their system of evaluating their people, which drives the promotion process, tends to destroy performance. Systems, where employees are stack-ranked or rated against each other, will increase emotional and economic pressure, reducing total motivation and thus performance. As a result, companies from Microsoft to Lear are moving away from performance review systems that foster unhealthy competition.

Looking at all these processes together, it's clear that culture is the operating the system of an organization. For example, one study of bank branch managers showed that offering high-ToMo leadership training led to a 20% increase in credit card sales and a 47% increase in personal loan sales. This implies the senior laboratory leaders who can build and maintain a high-performing culture by teaching supervisors and managers to lead in highly motivating ways. Likewise, senior laboratory leaders should make a business case for culture (with the budget, or using metrics) and enlist the subordinates to improve the elements that affect culture, from role design to performance reviews.

Even without redesigning processes, however, team leaders can start improving the total motivation of their employees by:

1. Holding a reflection huddle with your team once a week. Teams, who hold an hour-long huddle once a week in which each person answers three questions directed at encouraging:
    a. Play: What did I learn this week?
    b. Purpose: What impact did I have this week? And
    c. Potential: What do I want to learn next week?
2. Explaining the *why* behind the work of your team. To use a saying "We have to do this because the boss asked for it" is a way of motivating through emotional pressure, but it hurts a team's performance. So, explaining why a project would help the patient or a colleague instead is the correct way.
3. Considering how you've designed your team's roles. Does everyone have a space to play? Think about where people should be free to experiment and make that clear. For example, a lab manager lets each team member experiment with how they connect to patients, physicians, and nursing staff and encourages people to suggest process improvements. Then ask if everyone has the opportunity to witness the impact of their work, and think about what might help them build a stronger purpose. Finally, find out where each team member would like to be in two years — and come up with a plan

to help their reach their potential.

HOW TO MEASURE TOTAL MOTIVATION

Creating a business case for culture isn't impossible. While it is difficult to measure whether someone is being creative, proactive, or resilient at the moment, it's actually not difficult to calculate total motivation. Using six questions, one for each motive, a study computes an organization's ToMo using very simple math and then determine its impact on performance.

McGregor and Doshi reported that they survey employees of an organization, asking six questions– one for each motive (39). Each question determines how much of each motive a person feels in their work, on a scale between 1 (strongly disagree) and 7 (strongly agree). Then they use the following formula to calculate the individual's total motivation (ToMo), which is then used in calculating that of the organization:

(10 x the score for play) + (5 x purpose) + (1 2/3 x potential) – (1 2/3 x emotional pressure) – (5 x economic pressure) – (10 x inertia).

They determined the weighting of each motive by conducting regressions between each motive and performance across industries and then simplified to build a simple metric that ranges from -100 to 100. The weights demonstrate that the closer the motive is to the work itself, the more it drives performance.

This survey is accessed through the website https://www.vegafactor.com/book. You can measure your ToMo or your team's ToMo using a survey on this site. (Accessed November 2018).

SUMMARY

Motivation is a powerful thing in the workplace, and it can work both for and against you depending on the circumstances. Make sure your employees have plenty of the right kind of motivation and look forward to seeing their best work.

While all of the motivation theories are helpful in understanding the management and motivation from a visionary perspective, it is important to recognize most of the aspects upon which these theories focus. That is, expectancy, goal setting, performance, feedback, equity, satisfaction, commitment, and other characteristics are considered in the process of motivating employees.

Extrinsic motivation and intrinsic motivation are both important ways of driving positive behavior. To comprehend how these can be best utilized, it is important to understand some of the key differences between the two types of motivation including the overall impact that each can have on behavior. Laboratory leaders can improve their success rate by providing extrinsic rewards that will help their team members to be intrinsically motivated to become top performers.

Your responsibility as a laboratory leader is to develop your team so that it can take on more and more of your own responsibility. A mature team should be virtually self-

managing, leaving you free to concentrate on all the joint enhancing strategic aspects that you yourself need in order to keep motivated and developing.

Although there is not a single, magical solution for motivating individuals, careful consideration of each of these motivation theories and how they might be applied to build and shape a highly motivated organization will most certainly result in benefits and rewards to all. Tailoring the approach of your management to the needs and motivation levels of various team members is a strategy that should pay off in the long run.

A positive work climate leads to and sustains employee motivation, high performance, and better results in the clinical laboratory. Good leadership and management practices contribute to a positive work group climate.

The methods for leading help you guide staff in group decision making and foster commitment.

As the laboratory leaders, we are to find ways to activate the seeking systems of our team members. And it doesn't take charm, or motivational speeches to tap into that energy — all it takes is a concerted effort to infuse self-expression, experimentation, and personalized purpose into all that we do.

Assessment of leadership motivation skills is found in **Appendix F**.

Appendix G presents an activity using a Motivational Pie Chart.

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CHAPTER 6

Workplace Culture, Ethics and Laboratory Leadership

EDWARD RANDELL

LEARNING OBJECTIVES

- To provide a description of ethical leadership in laboratory medicine
- List fundamental sources describing ethical behavior for leaders in laboratory medicine
- To describe the primary role of leaders in determining workplace culture
- Describe how ethical behaviors among laboratory medicine leadership relate to medical errors, assuring appropriate utilization of laboratory services, and continuous improvement and pursuit of excellence

KEY QUESTIONS

- How do the primary ethical virtues apply to laboratory medicine leaders?
- Which sources define ethical standards of practice for leaders in laboratory medicine, and what do they say?
- Why is ethical leadership essential to a culture of quality in laboratory medicine?
- What are the characteristics or qualities that accompany ethical leadership?
- How does ethical laboratory medicine leadership apply to the following:
    - Identification, prevention, and responding to medical errors?
    - Assuring good laboratory utilization practices?
    - Continuous improvement and the pursuit of excellence?

INTRODUCTION

Laboratory Leadership owns ethical accountability to patients, society, to staff and to their professional colleagues. Laboratory Leadership is challenged by promoting a laboratory culture where ethical conduct is sustained. Recent work on Ethics in Laboratory Medicine was produced by the International Federation of Clinical Chemistry (IFCC) task force on ethics (1). The reader is encouraged to refer to this

document for a broader address of the application of three ethical principles (Respect for persons; Beneficence; Justice) to laboratory medicine at the pre-analytical, analytical and post-analytical phases. This chapter will focus on ethical leadership and its role in affecting laboratory culture and quality.

ETHICS AND LABORATORY MEDICINE

In simple terms, ethics is the knowing and doing the right thing. Our individual ethical framework is developed from social and cultural norms, philosophical principles and religious beliefs. Personal ethics is challenged by conflicting ideas of what the right thing is given the desperate influence by an individual, cultural, religious, and historical factors. Ethical dilemmas are, therefore, not always between right and wrong, but sometimes two or more rights. Ethics can be situational, cultural, professional, value-based, rule-based (organizational), based on fairness, or based on coherent and generally accepted principles.

WHO in its 1999 monograph entitled "Ethical practice in laboratory medicine and forensic pathology" defines ethical practice as *"…good technical practice accompanied by proper attitudes and behavior. In deciding what is proper, reference is often made to moral values voluntarily adhered to within the community and to standards espoused in various codes of professional practice.*" (2). In other words, ethical laboratory practice is determined by the values of the community or organization in which the laboratory resides, and is based on professional codes of conduct that underline the actions and decisions of laboratory professionals.

DEFINING ETHICAL LEADERSHIP

Ethical leadership is determined by two main elements:

1- Visible – What is said and done, or by ethical actions and statements observable by others.
2- Invisible – By personal character, including the mindset, decision-making processes, and values and principles of the individual.

Ethical leadership proceeds from individual morality and is demonstrated in actions and behaviors. Riggio et al. (3) conceptualized ethical leadership based on the ancient philosophical approach of Aristotle who emphasized a system of four primary virtues: prudence, fortitude, temperance and justice (**Table 6.1**).

Much has been written describing the characteristics of ethical leadership. A review by Zhu et al. (4) described the ethical leader as both an ethical person and moral manager. Ethical leaders are first ethical persons who:

- Act in a manner consistent with personal beliefs and ethical standards
- Are altruistic in motivation
- Are moral people possessing characteristics like honesty, integrity, trustworthiness, and fairness, and objectivity in decision-making

Table 6.1. The primary virtues of Ethical Leadership.

Prudence	Establishing a compromise between extremes to maximize benefit while minimizing harm. This requires doing the right thing after considering all information before the decision and taking action.
Fortitude	Courageously standing firm when faced with ethical challenges, including doing what is right in face of adversity.
Temperance	Controlling oneself - showing moderation and control over personal needs and wants.
Justice	Sustaining an unwavering willingness to give others what they deserve based on established law and principles of fairness - Involves showing respect for others.

As moral managers, ethical leaders:

- Make difficult decisions based on high standards of ethical conduct
- Inspires followers toward a common vision
- Aspire to build workplace community based on social justice
- Are role models for ethical conduct and influence others toward ethical decisions
- Communicates regularly and often their ethical values, standards, and principles toward developing a system where all are consistently held accountable for ethical conduct

Based on these concepts it is the decision or actions in response to the circumstance that denotes ethical conduct for leaders. Leaders are role models and, as such, must model ethical behavior for the workplace. A clear and coherent ethical framework provides leaders with a solid basis for ethical decision making and action. This ethical framework is intrinsic, consistent and proactive. It is part of the leader and shaped by the past, but evolves with new life experience.

Every day brings new ethical challenges and questions. Actions occurring in clinical laboratories have the potential for life-altering effects on patients. In an article on the topic of ethics in laboratory medicine, Wijeratne and Benatar (5) acknowledge that clinical laboratories are bound by the same ethical principles as those that direct caregivers interacting more directly with patients. This includes a moral code to avoid harm to patients (non-maleficence), making every reasonable effort to advance improved outcomes and advocacy (beneficence), respecting the values and preferences of individual patients, and demonstrating fairness without discrimination in governing actions. Moreover, is the ambition to pursue excellence in one's work (5). Leading in positive change and improvement involves confronting the many ethical dilemmas and addressing them in an ethical manner. These dilemmas become even more challenging when there are limited resources. Many ethical challenges arise when resources are limited. Ethical leadership need not be compromised, however, if guided by sound principles and virtues. In conclusion, ethical principles of medicine like non-maleficence, beneficence, respect for individual autonomy, and justice combined with the pursuit of excellence in one's

work; and virtues of prudence, temperance and fortitude, and integrity govern the behavior and actions of good laboratory leaders.

THE FOUNDATIONS OF ETHICAL LEADERSHIP IN THE CLINICAL LABORATORY

National and International standards, laws and regulations, professional codes of conduct, and workplace organizational goals and mission statements all help to provide foundations for ethical practice in the clinical laboratory. International standards require that laboratories ensure ethical conduct in its activities. The WHO document entitled "*Ethical practice in laboratory medicine and forensic pathology"(2)* remains an important one in defining ethical practice in laboratories based on the principles of medical ethics. It provides the basis for codes of conduct, laws, and regulations on privacy and confidentiality, training programs and toward developing a culture of quality in the laboratory. Laboratory leaders play a critical role in establishing the workplace environment where the above activities are conducted, and where professional standards, laws, and regulations are adhered to. In addition, laboratory leaders ensure that laboratories "*are not subject to non-medical control where this has the potential to interfere with their ability to act freely in the best interest of the patient.* " This prohibits the pursuit of financial arrangements where patient best interests are compromised. When resources are constrained this means avoiding unnecessary expenditure of resources on some patients where the fair share to others will be compromised. Ethical laboratory leadership is proactive in assuring resources are not wasted, but disposed of in a responsible manner and distributed to meet the needs of all patients served.

In its document on leadership and management roles in QMS (6) Clinical Laboratory Standards Institute (CLSI) indicates an obligation of leadership to conduct laboratory business in an ethical manner but also to promote a laboratory culture that supports quality and maintain compliance with codes of professional conduct. Professional codes of ethics contribute to the ethical foundation of laboratory leaders. For example, the International Federation of Biomedical Laboratory Science (IFBLS) established a code of ethics for laboratory scientists (7). This code emphasizes accountability for the quality and integrity of laboratory services; maintenance of confidentiality of patient information and providing safeguards to preserve the dignity and privacy of patients. Similarly, the American Association for Clinical Chemistry (AACC) ethical code emphasizes good professional and scientific conduct, providing high quality services, continuous professional development, respect for privacy and confidentiality, promotion of safety and best interests of patients, and open disclosure of conflicts of interest and open communication with physicians including disclosure of medical errors impacting patients (8). Compliance with professional codes of ethics enhances the opportunity to do the right thing and alleviate the potential for imbalance by overvaluing efficiency and effectiveness over other values important to quality and benefit to patients.

As the preeminent standard concerning laboratory QMS, ISO 15189 (9) addresses the responsibility of laboratory leaders to conduct activities in an ethical manner, making leaders responsible for maintaining the integrity of the laboratory and ensuring ethical principles are not compromised. The focus areas of ISO 15189:2012 on ethical areas are summarized in **Table 6.2**.

Legislative Acts and laws establish the rules and principles affecting health services in governmental jurisdictions. For example, the Canadian Health Act is based on principles of public administration by not-for-profit authority, comprehensiveness in the scope of services, universality to all residents, portability across provinces within the country, and provision of reasonable access to health facilities and compensation for service providers. Arising from this are regulations affecting practice and policy affecting all publically funded health organizations. Other Legislative Acts relevant to health care may affect access to information, the labor code, controlled substances, criminal code, and privacy. All of these bears on ethical principles indicated earlier and lay the foundation and limitations for conducting activities in the clinical laboratories in an ethical and legal manner.

Table 6.2. ISO 15189 and ethical role of laboratory leaders.

Maintain confidence in laboratories competence, impartiality, judgment and operational integrity
Avoid influences (Commercial, Financial, etc.) that adversely affect the quality of work
Openly declare any potential conflict of interest
Ensure staff have appropriate procedures for the handling of samples according to legal requirements
Maintain confidentiality of information
Provide ethical training to all laboratory personnel

In addition to the above ethical foundations, global mission, value, and vision statements are put out by health care organizations define ethical conduct. *Mission* statements of organizations and laboratories describe the fundamental purpose and also provide a basis for decisions, actions, and establishing priority and responsibility. The workplace *values* indicate the guiding principles on which actions are carried out in the organization. The organizational *goals* or *vision* establish targets and the desired outcomes of the activity. Ethical leadership involves embodying the primary purpose, values, and vision of the organization as ethical practice by leaders permeate throughout all aspects of the organization through the execution of their influence over others to perform actions, change attitudes and values, or to behave in a certain manner. The ethical framework of good laboratory leaders is consistent with the mission, purpose, and vision of the organization while remaining compliant with standards of practice and professional codes of ethics and within the limits established by local law and regulation.

WORKPLACE CULTURE AND CLINICAL LABORATORY

The culture of the workplace is established by behaviors and how they are interpreted, how actions are performed and communicated, including the general experience associated with the workplace, and its people. Factors like local language and the prevailing ideas, goals, and aspirations, values and accepted norms, assumptions and beliefs, and habits all influence laboratory workplace culture. However, of major significance to establishing laboratory culture are the actions of laboratory leadership. Leaders define, empower, but can also change workplace culture.

THE ETHICAL CHALLENGES OF LABORATORY CULTURE

The local laboratory culture is influenced by the broader organizational culture under which the laboratory operates. Systemic factors within the broader organizational culture generate wider ethical issues and impact the overall quality and safety of healthcare given to the local population. Of significance is the potential for medical error originating, not necessarily from professional incompetence but rather, through deficiencies in the safety culture and effectiveness of the organization - wherein laboratory service is delivered and where patient management decisions are made. These systemic factors manifest as variation in medical practice and outcomes for patients across similar medical services and patient populations (10). Health organizations that place inadequate attention to the quality of service are more often plagued with poorer patient outcomes, ineffectiveness, and poorer economic performance. To counter this, it is important for leaders, including laboratory leaders, to maintain a high degree of ethical accountability for the success and failures of their organizations and especially the components that they have influence over and power to change. The laboratory leader puts the organizational purpose to action by setting the bar high and creating the challenges for positive change.

THE ETHICAL LABORATORY LEADER

To operate ethically in the laboratory workplace, the underlying values and principles that govern ethical behavior for staff members and their profession must be aligned with those of the workplace atmosphere and purpose. In order to positively impact workplace culture, ethical behaviors must be practiced by leadership at all times. This is not as easy as it sounds as it often involves putting self-interests aside. However, ethical leaders make ethics the topic of conversation, bringing it out into the open to evolving and mature and to openly challenge all assumptions and points of view. Other staff looks to leaders as models of ethical behavior for the organization and, thereby, influence culture.

Modeling ethical behavior by laboratory leaders builds trust and brings credibility and respect to the leader and to the organization; it brings opportunities for collaborations, and helps create a healthy workplace culture; allows the leader to take the moral high ground, and gain self-respect.

What are the qualities of ethical laboratory leadership?

- Puts organizational good and that of others ahead of personal benefit
- Encourages discussion of ethics as an ongoing feature of laboratory culture
- Applies ethics in decision-making
- Considers consequences of decisions on others and explores ways to minimize harm
- Avoids autocratic decision making, but shares decision making with those affected directly
- Empowers subordinates to do their jobs well
- Maintains perspective
- Treats everyone with fairness, honesty, and respect at all times
- Promotes inclusiveness by forming collaborations with those inside and outside of the lab.
- Maintains open communication with all
- Takes own leadership responsibility seriously and holds self-accountable to fulfilling it
- Constantly strives to increase own professional, interpersonal and cultural competence
- Never overstays their usefulness
- Never stops reevaluating own ethics and leadership
- Commits to bringing and sustaining the workplace in compliance with established standards of practice, codes of conduct, local laws and regulation, and the goals and mission of the organization
- Fosters an ethical workplace and culture of quality

CULTURE OF QUALITY AND ETHICAL LABORATORY LEADERSHIP

There is an intimate natural link between quality and accountability to ethical practice. Success in providing quality in healthcare is closely aligned with the values of ethical healthcare practice. Quality is about doing the right thing well. Improving quality requires a workplace culture to nurture and maintain successes.

For laboratories, quality is about providing safe, effective and timely services to local patient populations. However, mistakes occur in the best-run laboratories. QMS address quality through QC, QA, and Quality Improvement activities. QM requires conscious attention and focus in order to excel. Developing a Culture of Quality requires clearly articulated quality values and a vision for quality understood by all, and most importantly supported by leadership. Laboratory leaders lead in quality by example and by focusing resources toward QM activities. This starts with written management goals concerning quality and a follow-through commitment. When frontline staff sees the importance of quality to leadership it becomes important to them. In essence, a quality culture requires a culture of reporting, measuring, and monitoring indicators relevant to quality. It involves empowering frontline staff, whose essential role is not only to catch mistakes at an early stage but to promote opportunities for improvement proactively. To maintain these practices

laboratory leadership must take reported events through action. If events are not followed up, a loss of trust soon develops and reporting is diminished.

BLAME CULTURE VERSUS JUST CULTURE

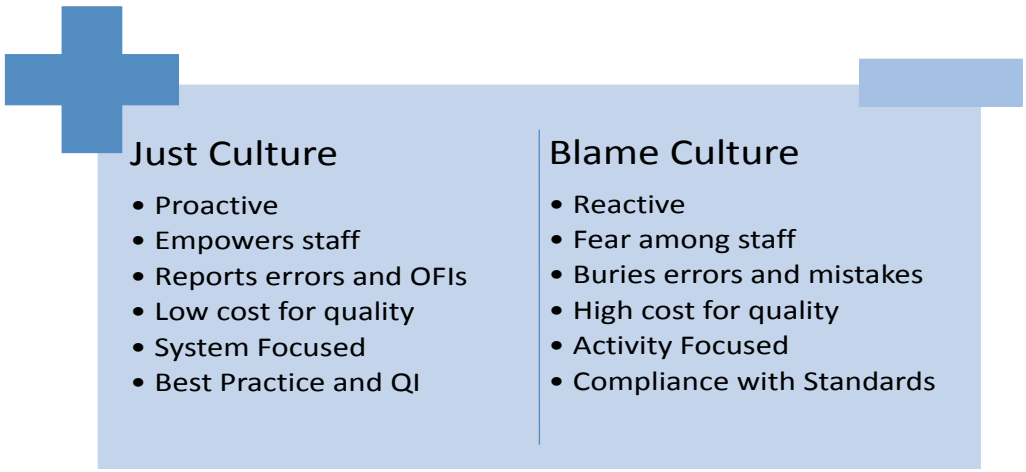

Figure 6.1 Just Culture versus Blame Culture

A quality culture recognizes the importance of the workplace environment to quality of services. The focus is on workplace systems, not individuals when things go wrong. Poor quality comes at an enormous cost, not only to address root causes but also through downstream consequences (outside of the laboratory). An organizational and laboratory culture characterized by blame, shame, and punishment of mistakes does not nurture a culture of quality (**Figure 6.1**). Most employees want to do the right thing. A culture of quality grows out of a just culture where all mistakes and errors are addressed in a manner that is just and fair, where there are accountability and lack of blame-casting. Quality and safety are not effectively managed by placing blame, defaulting to discipline, offering to retrain to every failure, or through reminders on what not to do. The Just Culture replaces the blame-free culture with accountability and facilitates efforts to identify the root causes and to address these. The accountability component makes quality the responsibility of all staff. This requires clear communication from laboratory leadership on the expectations of each employee to report deficiencies in the system. The Just Culture applies the ethical values of fairness and justice through its leadership when addressing the course of action in response to mistakes and errors, giving the whole process credibility. Reinforcing the efforts of staff to improve operations demonstrates the laboratory leader's commitment to quality and also adds credibility to the process.

CULTURE CHANGE

Adopting a laboratory culture that embraces quality, improved patient safety, and strives toward efficiency and relevance requires making a change. Workplace change begins first with leadership. Workplace dysfunction can result from poor leadership practice, especially when arising from self-serving motivation on the part of leaders and fear-based reactions on the part of the staff. The effort toward making change must go beyond drafting new laboratory policy and procedure. Humans reject change as if by nature, even when change is in their best interest. This resistance to change comes out of fear of loss and uncertainty, plus other factors inerrant in the workplace culture leading to an affinity for the present state of affairs. The major drivers for behavior and action are values. Changing values are critical to lasting change.

Initiating change in a practical sense involves removing obstacles to change. This involves removing obstacles, like fear, through empowerment and accountability, motivating to change, open communication, and teamwork. Once there is a commitment to change, offering recognition for accomplishments provides a powerful message to others. The workplace culture must be one in which all staff shares the values needed to drive change, and in which staff is empowered to take ownership for a change.

ETHICAL LABORATORY LEADERSHIP AND MAINTAINING A CULTURE OF QUALITY

Ethical laboratory leadership is fundamental to maintaining the culture of quality in laboratories. Such leadership involves modeling ethical behavior and creating a culture that promotes ethical behavior, and one that is intolerant to unethical behaviors. Once created, the Culture of Quality and associated ethical conduct must be sustained. Ethical erosion occurs when there is an incremental loss of ethical principles in daily routines, which if left unattended to, can accumulate to disastrous consequences. The risk of erosion of the value system for quality in daily activities can be prevented by incorporating ethical wisdom into laboratory culture. Ethical wisdom is simply the wisdom to do the right thing. Sustaining the culture of quality depends on individuals making sound ethical decisions during daily activities. Also, to sustain the ethical element, leadership must be prepared to regularly engage and acknowledge the stark realities whether they be good or bad. This requires awareness and frequent reflecting on the fact that unethical activities and decisions may be occurring and speaking up when these situations present themselves. Open communication on ethical activity and sharing of ethical wisdom helps prevent mistakes from recurring. Sustaining the ethical element requires a commitment to seeing that even difficult circumstances are brought through to resolution with the ethical focus sustained. In such instances, laboratory leaders show respect to all involved and demonstrate a willingness to listen to all voices.

Key points to making change

- **Start from the top:** Changes in management tends to trickle down to other staff.
- **Reality Check:** Provide staff with the stark realities concerning the present state that make change necessary.
- **Empower staff**. Allow staff the opportunity to participate in change as stakeholders from the beginning. Avoid management-only decision making.
- **Attitude is everything:** Identify and remove sources of negative attitudes.
- **Make change attractive:** Providing incentives for change and allow staff to find opportunities for their own development in the change. Provide opportunities for new skills development.
- **Value the valuable**: Develop a system to show appreciation for staff who work hard. Identify and make greater use of them by providing them new opportunities to display their strengths. Advance people based on merit.

Of great importance to sustaining a culture of quality is the keeping of professional codes of conduct, organizational goals, and purpose, and high standards of practice as ethical foundations during the daily focus on patient care and patient interests. This applies whether establishing turn-around time goals, identifying reference ranges for a diverse population, making decisions on a specimen inadvertently left on the bench for too long, addressing an instrument malfunction that affected results for an indeterminate amount of time, or any other activity where ethical principles are called into bare. Instilling the values of an ethical culture allows the right practices to arise as an intrinsic characteristic of the laboratory culture rather than by constraint or regulation.

ADDRESSING MEDICAL ERRORS AND UTILIZATION MANAGEMENT

The role of laboratory leadership in addressing daily ethical issues involves consideration of the impact of laboratory services on all aspects of care. There are ethical issues raised by the misuse of laboratory investigations. Intervention by laboratory leadership may be required in such instances. It has been said that more medical errors occur concerning laboratory tests before and after the laboratory than within the laboratory. Misuse of laboratory investigations involves overuse and underuse of laboratory services, but also a failure to appropriately interpret or to respond to a test result (11). It is estimated that about 20% of laboratory investigations are overused, and in 45% of situations laboratory investigations may be underused (12). There are situations where there is a failure to order a critical investigation in a timely manner, incorrect interpretation of a test result, failure to inform a patient of a significant result, or failure to follow-up a test result requiring attention. All of these constitute forms of diagnostic errors and illustrate compromise to quality of care.

Disclosure is an important component of addressing medical error. Near misses generally, do not require disclosure but present as opportunities for improvement. Laboratory leadership are accountable for establishing processes for communication and disclosure of medical errors, related to laboratory services, when they occur but

also to educate, inform, and intervene in situations where there is an opportunity to address situations where there is greater potential for a medical error involving the use of laboratory services.

Laboratory leaders, as advocates for patients, assure the relevance and the positive consequences of their service by intervening where patient's best interests are not served. This includes focusing due attention to utilization management and involving clinicians, and administrators as stakeholders and working together to ensure that ordered laboratory tests and their results provide clinical benefit to patients in a cost-effective manner. Initiation of such initiatives as testing algorithms, test ordering rules, reflexive testing, interpretative commenting, and providing an opportunity to caregivers for laboratory professional consultation is part of the solution to laboratory service misuse (13). Improving quality of care and patient safety are central to good laboratory utilization management initiatives.

PURSUIT OF SERVICE EXCELLENCE AND CONTINUOUS IMPROVEMENT

Continuous improvement involves an organized process for regular review, monitoring, and auditing of existing processes, procedures, and policy with the goal of improving the system. When deficits are found in the system, action plans are put in place and monitoring for effectiveness continues. Improvement processes are often systematic and cyclic in operation involving continued rounds of activity producing incremental improvements. Some of the better known continual improvement systems applied to the clinical laboratory include Lean, Six-Sigma, and Plan-Do-Check-Act (PDCA) plus the many variations and constituent methods of these. These systems are operated by process improvement teams who, by means of practice, develop expertise in the various component techniques.

Continuous improvement with a plan and goal toward excellence sets the laboratory on the road to excellence in service, an ethical virtue of laboratory practice (5). Good laboratory leadership is critical towards this end as leaders hold primary responsibility and accountability for the performance and success of the laboratory. The principles of ethical conduct are fundamental and not compromised in continuous improvement as the primary outcome of the process is service excellence to the client, patients, and clinicians. Improving processes involves a focus on reducing risks, and managing and improving quality and safety, both of which are firmly based on the ethical principles of benevolence and non-maleficence. The pursuit of excellence involves no firm endpoint but a renewal of targets as improvements are made and goals reached. Laboratory leaders must establish continuous improvement as a value in its people, processes, and services if continuous improvement is to occur. Laboratory leadership openly communicates, sustains and nurtures the shared vision of continuous improvement by inspiring and empowering staff, as participants and co-creators of the systems under which they work, toward their personal best, for the best of the laboratory, and the best of the clients served. An ethic of continuous improvement requires a shared laboratory vision. Leading this requires a consistent moral foundation for actions that are

perceived as transparent and ethical, and therefore fair and just (14).

SUMMARY

Ethical laboratory leadership is essential to developing and sustaining a culture of quality, and to providing a laboratory service that is of high quality and safe for patients. Ethical leadership in laboratory medicine is manifested out of a value system based on ethical principles of non-maleficence and beneficence, respect for autonomy, and justice combined with a drive to personal continuous improvement. It is also governed by a moral code of prudence, temperance and fortitude, and integrity. The ethical laboratory leader in action is guided by standards of practices, professional codes of conduct, organizational goals, vision, and missions, and laws and regulation, and helps create and sustain a workplace where an ethical culture and culture of quality can flourish. The impact of this culture extends beyond the walls of the laboratory to those outside and serviced by the laboratory.

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CASE STUDY & EXAMPLES

Reflect on the following ethical challenges as matters you are addressing as a laboratory leader and affecting your laboratory. Outline your response in addressing each of the challenges and then evaluate your own response based on the questions that follow.

- Ethical Challenge 1: You discover an analytical error made in your laboratory has been affecting results for many patients over several months. The test result is critical to patient management decisions and the error has placed patients at high risk for adverse outcomes. Physicians are not yet aware of a problem with the test results.
- Ethical Challenge 2: You are invited to an educational event in another country with all expenses covered by a reagent/equipment vendor in your laboratory.
- Ethical Challenge 3: On reviewing historic results on a patient with highly concerning tests results requiring your interpretative input you discover previous pathological findings that were not appropriately followed up by a physician.
- Ethical Challenge 4. A technologist reports to you an increase in the rate of hemolyzed samples coming from the Emergency Department.
- Ethical Challenge 5: It is brought to your attention that a family practice physician is ordering CA125 (an ovarian cancer tumor marker) on a high proportion of his male patients.

After reflecting on each of the ethical challenges and outlining your response to each:

1. Evaluate your response from the perspective of the four ethical virtues (prudence, fortitude, temperance, justice).
2. How does your response align with ISO 15189 management roles?
3. What impact would your response as a laboratory leader impact the laboratory environment and the opinion others may develop about the laboratory based on your response?
4. How does your response promote a culture of quality?

APPENDICES

Appendix A

Leadership Skills Assessment Questionnaire

This informal tool is designed to learn how good your leadership skills are (1).

Next to each statement put a mark that represents how strongly you feel about the statement.

Be honest about your choices as there are no right or wrong answers—it is only for your own self-assessment.

	Statements to Answer	Almost never true	Seldom true	Occasionally true	Frequently true	Almost always true
1	When assigning tasks, I consider people's skills and interests.					
2	I doubt myself and my ability to succeed.					
3	I expect nothing less than top-notch results from people.					
4	I expect my people to work harder than I do.					
5	When someone is upset, I try to understand how he or she is feeling.					
6	When circumstances change, I can struggle to know what to do.					
7	I think that personal feelings shouldn't be allowed to get in the way of performance and productivity.					
8	I am highly motivated because I know I have what it takes to be successful.					

9	Time spent worrying about team morale is the time that's wasted.					
10	I get upset and worried quite often in the workplace.					
11	My actions show people what I want from them.					
12	When working with a team, I encourage everyone to work toward the same overall objectives.					
13	I make exceptions to my rules and expectations. It's easier than being the enforcer all the time!					
14	I enjoy planning for the future.					
15	I feel threatened when someone criticizes me.					
16	I make time to learn what people need from me so that they can be successful.					
17	I'm optimistic about life, and I can see beyond temporary setbacks and problems.					
18	I think that teams perform best when individuals keep doing the same tasks and perfecting them, instead of learning new skills and challenging themselves.					

Score Interpretation

Score each of the 18 statements using the following scale to calculate your total.

Statement / Answer	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Almost always true	5	1	5	5	5	1	5	5	1	5	5	5	5	5	1	5	1	1
Frequently true	4	2	4	4	4	2	4	4	2	4	4	4	4	4	2	4	2	2
Occasionally true	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Seldom true	2	4	2	2	2	4	2	2	4	2	2	2	2	2	4	2	4	4
Almost never true	1	5	1	1	1	5	1	1	5	1	1	1	1	1	5	1	5	5

A total score of between 18 - 34 means you need to work hard on your leadership skills. The good news is that if you use more of these skills at work, at home, and in the community, you'll be a real asset to the people around you. You can do it – and now is a great time to start!

A total score of between 35 – 52 means you are doing OK as a leader, but you have the potential to do much better. While you have built the foundation of effective leadership, this is your opportunity to improve your skills and become the best you can be. Examine the areas where you lost points, and determine what you can do to develop skills in these areas.

A total score of between 53 – 90 means Excellent! You're well on your way to becoming a good leader. However, you can never be too good at leadership or too experienced – so look at the areas where you didn't score maximum points, and figure out what you can do to improve your performance.

As Chapters 1, 2 and 6 indicate there are many leadership skills and competencies that, when combined and applied, work together toward making you an effective leader. You have the ability to develop each of these skills within yourself.

Personal Attributes

Chapter 2 addresses that successful leaders tend to have certain traits. Two key areas of personal growth and development are fundamental to leadership success: self-confidence and a positive attitude.

Self-confident people are usually inspiring, and people like to be around individuals who believe in themselves and in what they're doing. As it is discussed in Chapter 5, likewise, if you're a positive and optimistic person who tries to make the best of any

situation, you'll find it much easier to motivate people to do their best.

Self-Confidence - Questions 2, 8

Self-confidence is built by mastering significant skills and situations, and by knowing that you can add real value to the work you do. One of the best ways to improve your confidence is to become aware of all of the things you've already achieved.

Positive Attitude and Outlook - Questions 10, 17

A positive mindset is also associated with strong leadership. However, being positive is much more than presenting a happy face to the world: you need to develop a strong sense of balance and recognize that setbacks and problems happen – it is how you deal with those problems that make a difference.

Positive people approach situations realistically, prepared to make the changes necessary to overcome a problem. Negative people, on the other hand, often give in to the stress and pressure of the situation. This can lead to fear, worry, distress, anger, and failure.

It is advised to practice stress management techniques, including getting enough Rest, Relaxation and Sleep as well as physical exercise to get rid of negative thoughts and feelings. Understanding your thinking patterns, and learning to identify and eliminate negative thinking, are pivotal (2).

Emotional Intelligence - Questions 5, 15

The concept of emotional intelligence used to be referred to as "soft skills," "character," or even "communication skills." The more recent idea of Emotional Intelligence (EQ) offers a more precise understanding of a specific kind of human talent. EQ is the ability to recognize feelings - your own and those of others - and manage those emotions to create strong relationships.

Learning to develop empathy is essential for emotional intelligence, as is communicating effectively, and practicing empathic listening. These all help you really understand the other person's perspective.

Our Leadership Training Certificate Program has a section on emotional intelligence towards developing leadership skills.

Transformational Leadership

As Chapter 2 cover that transformational leadership is a leadership style where leaders create an inspiring vision of the future, motivate their followers to achieve it, manage implementation successfully, and develop the members of their teams to be even more effective in the future. These dimensions are explored through the following questions.

Providing a Compelling Vision of the Future - Questions 6, 14

This is your ability to create a robust and compelling **vision of the future** and to present this vision in a way that inspires the people you lead.

The first part of being able to do this is to have a thorough knowledge of the area you're operating in.

Motivating People to Deliver the Vision - Questions 9, 12

This is closely related to creating and selling a vision. You must be able to convince others to accept the objectives you have set. Emphasize teamwork, and recognize that when people work together, they can achieve great things. Ultimately, you need to motivate people to deliver your vision. To better understand your ability to motivate, complete the quizzes of Self-Motivation Assessment and Leadership Motivation Skills assessment, and explore Chapter 5.

Being a Good Role Model - Questions 4, 11

Good leaders lead by example. They do what they say, and say what they do. These "walk the talk" type of leaders are called trustworthy and show integrity. They get involved in daily work where needed, and they stay in touch with what is happening throughout the organization. Great leaders don't just sit in their offices and give orders - they demonstrate the actions and values that they expect from the team.

Managing Performance Effectively - Questions 3, 13

Effective leaders manage performance by setting their expectations clearly and concisely. When everyone knows what's expected, it's much easier to get high performance. There's little uncertainty, therefore you can deal with performance issues quickly. As you create rules, help your team members to understand why the rules are there. Involve them in the rule-making process, and make sure that your expectations align with the resources and support available. Apply rules fairly and consistently.

Providing Support and Stimulation - Questions 1, 7, 16, 18

To be highly motivated at work, people need more than a list of tasks to be completed each day. They need challenges and interesting work. They need to develop their skills, and to feel supported in their efforts to do a good job (See Chapter 5). The section of Team Management within our Leadership Training Certificate Program will include the scope of how to manage a task allocation, and the opportunities to match people with jobs and responsibilities that will help them to grow and develop.

References

Retrieved and adapted from www.mindtools.com.

Further reading is an article on "Thought Awareness, Rational Thinking, and Positive Thinking", and how to become more optimistic in the book "Insight on Learned Optimism" which are available at www.mindtools.com.

Appendix B

Leadership Style Assessment Questionnaire

This assessment quiz helps you to become aware of the style that you naturally lean toward most often when working with employees or team members in your laboratory, the alternatives that you might find it helpful to develop, and the occasions when those styles may be appropriate (1).

This questionnaire contains statements about leadership style beliefs. Next to each statement choose one of the three options: A, B or C that represents how strongly you feel about the statement, and you answer how you would behave in reality, rather than how you think you should.

Statements to Answer	A	B	C
If there is serious conflict within my team: A. I remind everyone that we have goals to meet. B. I bring my people together so that we can talk it through. C. I let them work by themselves so that they don't have to bother one another.			
I trust my team members: A. Very much. B. A fair amount. C. Not at all.			
Some of my people are highly skilled and motivated. They: A. Can be set free to weave their magic. B. Often hold creative planning sessions with me. C. Are subject to the same workplace strategies and processes as everyone else.			
The best way for me to ensure that my team meets its goals is to: A. Lead from the front. B. Encourage participation from everyone. C. Delegate often and widely.			

We have an eight-hour deadline for a project that I think requires 16 hours, so I: A. Relay the deadline and let everyone get on with it. They know what they're doing. B. Ask my team members what they feel is the fastest way to complete it. C. Issue instructions and deadlines to each team member.			
Poor performance should be: A. Punished so that it doesn't happen again. B. Talked through with the individual, so that we can learn. C. Left. It will work itself out.			
I need to develop and apply a new social media strategy, so I: A. Draw up the strategy myself and then sell it to the team. B. Tell my team what the challenge is and ask for suggestions on how to meet it. C. Hand over the project to my team members and ask them to come back with a plan.			
I like to A. Let my team make the decisions. B. Make a decision but not until my team has had input. C. Make a decision but not until I have told the team my rationale.			
I have a new starter in my team, so I: A. Let him discover the best way of working. B. Invite him into team collaborative meetings. C. Sit with him until he understands the processes and the quality that I expect.			

I think that great leaders: A. Know best. That's why they're leaders. B. Are humble and understand that a team works best collectively. C. Give their team members plenty of space to let them get on.			
When asked whether I like to serve my team, I: A. Am not sure. B. Say yes, wholeheartedly. C. Frown.			
I notice that a member of my team is demotivated, so I: A. Closely manage each of her tasks to ensure that she is following procedures correctly. B. Make an extra effort to ensure that she is involved in team discussions. C. Back off, as she probably needs some space.			

Score Interpretation

Score each of the 12 statements you marked using the following scale to calculate your total:

A = 3

B = 2

C = 1

A total score of between	Analysis
12-20	You most commonly adopt an authoritarian or autocratic leadership style. You rarely consult your team members and, instead, tend to tell them what you want, when you want it, and how you want it done. This style works well in a crisis when a task must be completed quickly. However, you'll likely demoralize, demotivate and aggravate people if you use it all the time. This can translate into high absenteeism and turnover rates. You'll also miss out on a wealth of ideas, thereby stifling innovation and creativity.
21-27	You lean toward a democratic or participative style of leadership. You tend to set the parameters for the work and have the final say on decisions, but you actively involve your team members in the process. This style can build trust between you and your people, as they'll likely feel engaged and valued. But it's not great in a high-pressure situation that requires a fast turnaround, as it will slow you down. And, if you dislike disagreement or conflict, you might struggle with how people respond to the consultation.
28-36	Your default leadership style is probably delegating or "laissez-faire." You give your team members free rein in how they work toward their goals. This is an ideal approach when your people are highly skilled and motivated, and when you're working with contractors and freelancers who you trust. But if a team member is inexperienced or untrustworthy, or if you lose sight of what's going on, this approach can backfire catastrophically.

We all tend toward one leadership style more than another, due to our personal preferences, abilities, role models, and job descriptions. But one approach doesn't fit all scenarios: some situations and people call for a fast, firm, top-down approach, while others flourish with shared responsibilities and the freedom to plan, decide and act.

You and your team will likely perform better if you develop a wide set of styles to apply as appropriate.

Chapter 2 illustrates this range of styles in relatively simple terms, from Authoritarian or Autocratic, through Democratic or Participative, to Delegating or "Laissez Faire." Transformational leadership is the best approach for most situations.

Reference

1) Retrieved and adapted from www.mindtools.com

Appendix C

Answers to Chapter 2 Exercise Questions

Q1: Identify elements of different leadership styles throughout Nhlapo's interaction with the staff member.

Answer: Nhlapo's leadership approaches moved from confrontational, transactional to participatory styles, then lastly to transformational leadership.

Q2: Identify elements of different leadership styles throughout Swazi's response to the mentioned problems.

Answer: He showed a servant leadership style and lived an example to the staff. He also used the situational leadership approach followed by the transactional and pragmatic approach and was able to change the behavior of the staff member.

Q3: Identify elements of different leadership styles throughout Steven's experiences mentioned in the case.

Answer: Steven was an example of a servant leader and also showed transformational leadership by showing how he cared for the service to the patient care.

Q4: What leadership styles did Dimpho use as an internal auditor?

Answer: Dimpho used a mixture of situational and transactional leadership styles which later on resulted in the transformational changes in the staff members.

Q5: What leadership styles did Dr. Mpilo, as a pathologist use in her challenge with the suborn staff member?

Answer: She showed charismatic, participatory, transactional, transformational leadership styles to change the unfavorable attitude.

Appendix D

Motivation Assessment

What is the “primary aim” of your laboratory/department?
How clear are you about your laboratory/department's principles, priorities, and mission.

What obstacles or challenges stop you performing to best effect?

What really motivates you and/or your staff?
Are you motivated by financial rewards, status, praise and acknowledgment, competition, job security, public recognition, fear, perfectionism, results, etc?

What makes you feel empowered?

Are there any recent changes in your laboratory/department that might have affected your motivation?
If your laboratory/department has made redundancies, imposed a recruitment freeze or lost a number of key employees this will have an effect on motivation.

As a leader, did you explore what motivates your staff and why they are motivated?

What are the patterns of motivation in your laboratory/department?
Who is most motivated and why?

What lessons can you learn from patches of high and low motivation in your laboratory/department?

Are employee goals and laboratory/department’s goals aligned?
You may find employees are highly motivated but about the "wrong" priorities.

How do you feel about your laboratory/department?
Do you feel safe, loyal, valued and taken care of? Or do you feel taken advantage of, dispensable and invisible?

What would improve your loyalty and commitment?

Do you have an appraisal process in place in your laboratory/department?

How involved are you in laboratory/department development?
Do you feel listened to and heard? Are you consulted? And, if you are consulted, are your opinions taken seriously? Are there regular opportunities for you to give feedback?

Is your laboratory's internal image consistent with its external one?
Your laboratory or institute may present itself to the world as "a nationwide leader in innovative laboratory research and development“, "a global reference laboratory" or the "best clinical laboratory service". You would have been influenced, and your expectations set to this image when you joined this organization. If you do not mirror

this image within your laboratory in the way you treat employees you may notice motivation problems.

Find out what the disparity is between the employee's image of the laboratory or institute from the outside and from the inside.

Appendix E

Self-Motivation Assessment Questionnaire

This questionnaire will allow you to determine how motivated you feel in your current role (1).

Score each of the 20 statements below using the following scale:

5 = Strongly Agree

3 = Not Sure

1 = Strongly Disagree

Statement	Strongly Agree	Not Sure	Strongly Disagree
The mission or purpose of my laboratory/department/institution makes me feel my job is important.			
I know what results are expected of me.			
The quantity of my work is enough to keep me busy but not too much to over-burden me.			
There is sufficient variety at work to maintain my interest.			
My supervisor/manager/chief leads by example.			
I have the opportunity to do what I do best every day.			
I have all the materials and equipment I need to do my best every day.			
I know what my supervisor/manager/chief thinks of my performance.			
The relationship with my supervisor/manager/chief enables me to be open when discussing work problems and concerns.			
I have friends at work.			

In the last seven days, I have received recognition or praise for doing good work.			
My supervisor/manager/chief keeps me informed about what is going on.			
I have opportunities to innovate and work on my initiative.			
My supervisor/manager/chief or someone at work seems to care about me as a person.			
I am free to choose my own method of working.			
I am adequately remunerated for what I do.			
Working relationships in my team are good.			
I am consulted and my opinions seem to count.			
In the last year, I have had opportunities to learn and develop myself.			
In the last 6 months, someone has talked to me about my performance and progress.			

Score Interpretation

A score between **60 – 100** means you are highly motivated and work in your laboratory/department/institution that values your contribution. Good for you!

A score between **40 – 60** means you lack some motivation but have sufficient to continue working in your laboratory/department/institution. Look at the questions that you marked with a low score and address these with your superior.

A score between **20 – 40** means you are lacking motivation and that the laboratory/department/institution in which you work has a poor structure for motivating you. You should evaluate your job carefully and decide on a plan of action.

Reference

1) Retrieved and adapted from www.aspina.com.

Appendix F

Leadership Motivation Skills Assessment Questionnaire

This questionnaire will allow you to discover how motivated you are to lead in your current role (1).

Instructions

To use this tool, show the extent to which you agree with each of these statements, on a scale running from Strongly Disagree to Strongly Agree. For each question, mark in the column that most applies. Then, calculate your “Total Score”. Next, check your result using the "Score Interpretation" panel below to explore and develop your motivation to lead.

Score each of the 14 statements below using the following scale:

5 = Strongly Agree

4 = Agree

3 = Not Sure

2 = Disagree

1 = Strongly Disagree

Statements to Answer	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
I am energized when people count on me for ideas.					
As a practice, I ask people challenging questions when we are working on projects together.					
I take delight in complimenting people I work with when progress is made.					
I find it easy to be the cheerleader for others, when times are good and when times are bad.					

Team accomplishment is more important to me than my own personal accomplishments.					
People often take my ideas and run with them.					
When involved in group projects, it is important to me to help the team stick together.					
When involved in group projects, coaching others is an activity that I gravitate toward.					
I find pleasure in recognizing and celebrating the accomplishments of others.					
When involved in group projects, my team members' problems are my problems.					
Resolving interpersonal conflict is an activity that I enjoy.					
When involved in group projects, I frequently find myself to be an "idea generator."					
When involved in group projects, I am inclined to let my ideas be known.					
I find pleasure in being a convincing person.					

Score interpretation:

A score between **14 – 27** means you have a low motivation to lead.

A score between **28 – 55** means there is some uncertainty about your motivation to lead.

A score between **56 – 70** means you have a strong motivation to lead.

Low Motivation to Lead

If you are considering taking on a leadership role, but your score indicates that you have a low motivation to lead, there are a number of factors for you to analyze.

Perhaps you feel that you don't have the right skills to be a leader. If that's the case, you can identify and develop your leadership skills. If you're not sure what's holding you back, you can find strategies to learn. If you've examined your motivation and desire, and decided that leadership is not for you, you can identify the kind of work that does motivate you.

Uncertainty About Your Motivation to Lead

If your score indicates that you are uncertain about your motivation to lead, you might just need support in the right direction. You may be a leader going through a difficult patch, or you may want to lead but doubt your ability and self-confidence to do so.

It might be helpful to get a reminder of your strengths and weaknesses as a leader or to find out if you do have the skills to lead. Try our “Leadership Skills Assessment” quiz that can help you do this.

If you want to lead, you should explore the idea of “Transformational Leadership”. That means being a role model for your team and living up to the standards you expect of others, motivating your people to buy into and deliver your vision, and create a process where you and your team members raise one another to the highest level.

Strong Motivation to Lead

If you have found that you are strongly motivated to lead, and you are already a leader – great! If you're not already a leader, this is definitely an area you should investigate as you plan your career.

Reference

1) Source: This set of questions was retrieved and adapted from www.mindtools.com and it was reported that the questionnaire was constructed for this self-assessment and for illustrative purposes only. No prior validation work has been conducted that enables this site to address the construct validity of this assessment. This self-assessment was patterned after that of A.J. DuBrin in Leadership: Research Findings, Practice and Skills (2nd edition) (Boston: Houghton Mifflin Co., 1998). P. 10-11.

Appendix G

The Motivational Pie Chart Activity

(Modified from an idea by Jennifer Dulski, at change.org)

The best way to keep people happy at work is to start directly asking *all* the people on your team to share what motivates them. To do so effectively, you can use this tool:

Just follow these four steps:

1. Give each person on your team a copy of the blank "**what motivates me**" chart.
2. Have them make a list of everything that motivates them at work: recognition, money, learning new things, responsibility, etc. They can write as many or as few things as they want and there are *no pre-set categories*. Anything that matters can go on their list.
3. Have them give each category a percentage weighting in order of its importance. Then, have them draw those percentages as pieces of the blank pie, so that the total adds up to 100%, thus giving you a comprehensive pie chart of motivators.
4. Using a "red, yellow, green" color coding system, have them color each section of the pie to illustrate how satisfied they currently are with each of the categories on their list. If they are very satisfied with compensation, it will be green. If they are concerned with how challenged they feel with their job, it would be yellow, and so on...

If you are using the tool as a manager, the next step is to have an open conversation with each person on your team to talk about ways you can work together to "get them to green" on all of their categories. If you are using the tool for yourself, it can help you think about steps to take to make yourself happier at work, including thoughts about whether you are in the right role or at the right company. The reason the tool is foolproof is that it starts with asking each individual what matters and then helping each person find ways to do more of what matters.

You will likely learn two important things:

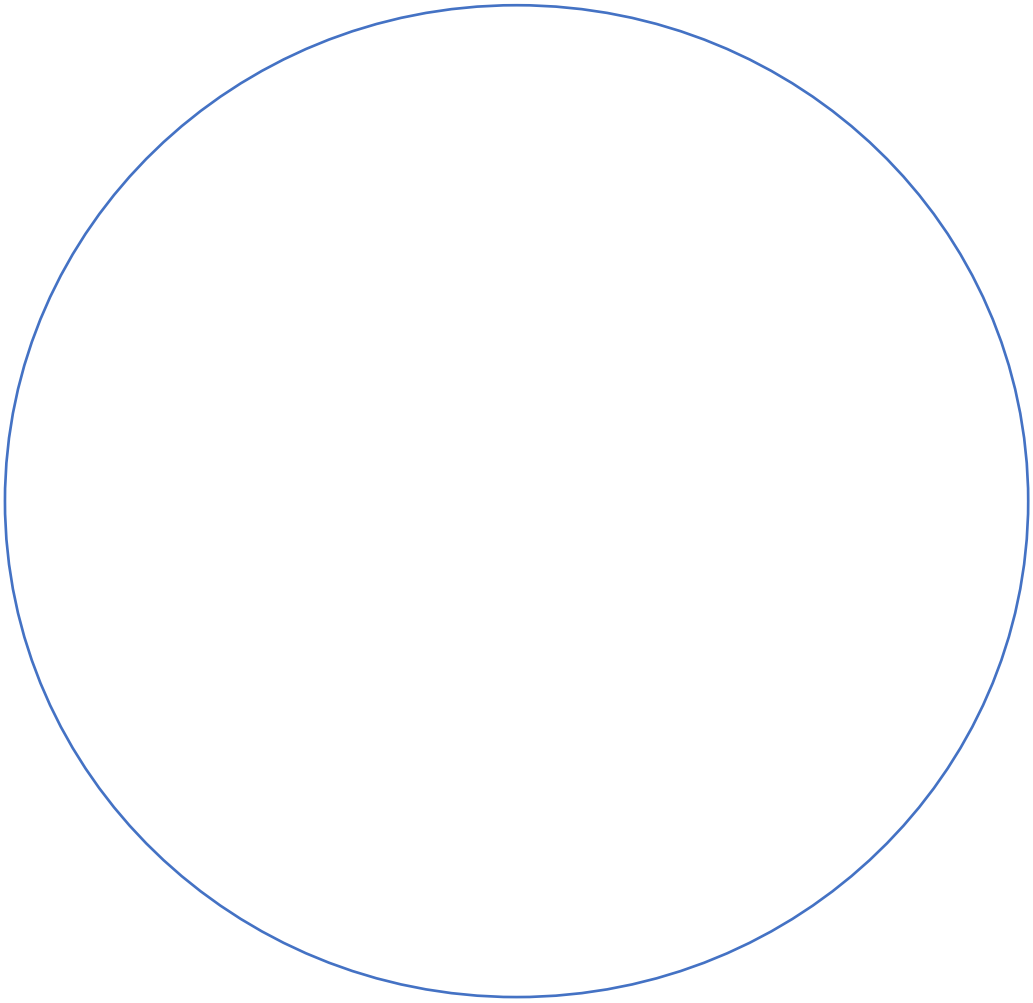
1. **People are really different.** Perhaps it goes without saying, but vastly different things motivate different people. Every time I do this exercise, I encounter something new. I've heard everything from people being passionate about hobbies (rock climbing, singing, etc.) that require them to have flexible work hours, to people saying they are motivated by external recognition and wanting to be on the cover of a magazine. I would never have known about those motivators

if I hadn't invited them to share.

2. **People are more similar than you'd think.** Despite all those differences, common patterns will usually emerge:
    - They want "worthwhile work," so they feel they're doing something important
    - They want to understand how their role fits into the goals of the organization.
    - They want to work with a team of people they admire and care about.
    - They want to learn new things and feel challenged by their jobs

The Motivational Pie Chart Worksheet

- _____ _____% _____ _____%
- _____ _____% _____ _____%
- _____ _____% _____ _____%
- _____ _____% _____ _____%



(color in your pie pieces: red = very unsatisfied, yellow = concerning, green = satisfied