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Editorial

The Science of Leadership

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Increasingly orthopedic surgeons are being called upon to take leadership roles in hospitals and health care systems during the Covid pandemic. Surgeons have an intrinsic understanding of leadership due to their role in the operating rooms. Beyond the typical authoritarian style of leadership, orthopedic surgeons have to appreciate that there are different styles of leadership they may employ outside of the operating room. This paper provides a foundational understanding of the basic theories of leadership.

INTRODUCTION

The Covid-19 pandemic has resulted in a significant amount of uncertainty for healthcare organizations. Navigating this period of uncertainty will require leaders who are visionary, who clearly understand the future of healthcare, and can guide and direct individuals to a stable endpoint. There have been many periods of uncertainty throughout the history of healthcare where leaders have been successful at guiding physicians towards an endpoint. Although there will always be a great debate regarding whether leaders are born or made, there is no question that the field of orthopaedic surgery requires a new set of leaders to navigate this upcoming uncertainty. Understanding some of the foundational knowledge about leadership can help organizations as they navigate this transition.

Leadership has been studied extensively since the time of ancient Greece and Rome. There have been numerous books published on the topic. Unfortunately, there have been few formal scientific studies examining the role of leadership in either orthopedic surgery or healthcare. As the structure of healthcare changes from the independent physician model to a networked organizational structure, it is clear that leaders will have a strong role to play in influencing the outcomes of care. The purpose of this article is to discuss the relevant science behind leadership with the hope of providing orthopedic surgeons a framework for understanding leadership theory.

DEFINITION OF LEADERSHIP

There have been many theories proposed on the definition of leadership. In the current changing needs of health care, leadership can be defined as an individual who uses the process of "social influence to enlist the aid and support of others for the accomplishment of a common task" (Chemers 1997). In England, the NHS has defined leadership as "the art of motivating a group of people to achieve a common goal" (The King's Fund 2011). For both of the previous definitions, leadership is defined as the *process* that an individual takes to get others to perform a certain *task*.

Traditionally physicians who acted as leaders in healthcare concerns led group practices around a single specialty whose tasks were mainly administrative, ensuring the successful completion of basic operations while maintaining a positive margin for the business. With the current changes in healthcare, physicians are increasingly becoming part of a large group or health care system. The integration of physicians into larger organizations is changing the responsibilities of physician-leaders. Beyond the administrative and financial tasks of running a business, leaders are being called upon to motivate physicians to change their behavior by working in an integrated/coordinated fashion with other physician and allied health providers, as well as fundamentally changing their workflows. Succeeding with bundled payments in orthopaedic surgery represents an example of a change in financial reimbursement that requires a team approach to care. With the change in reimbursements from volume to value it is clear though that changing behavior among physicians will require a new set of leader-

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ship skills. In addition the uncertainty that will come about in healthcare once the Covid-19 pandemic is over will require physician leaders.

THE IMPORTANCE OF LEADERSHIP IN HEALTHCARE TODAY

Currently there is a tension in healthcare between administrators "telling" physicians what to do and physicians responding by saying they know intimately what is best for their patient. This tension comes about through a natural push-pull regarding who controls the *decisions* that are made in the hospital or outpatient clinic. It is clear that the decisions that a provider makes have tremendous downstream implications on the quality of care as well as the costs of care (i.e. value). Since the provider level decisions have such a tremendous influence on value, understanding what influences those decisions is critical.

Often the medical decisions that an orthopedic surgeon makes are dictated by professional standards, evidence published in the literature, as well as reimbursement issues. The question though is who should ensure adherence to these standards: hospital administrators or other orthopedic surgery peers? Using reimbursement decisions as a surrogate, insurance companies are inevitably ensuring adherence. If health care systems move toward an ACO type of structure, it will be critical for hospital administrators to ensure adherence.

Physician leaders, using the tools of ***influence*** and ***persuasion***, clearly can have a major impact on the decisions that other physicians make. These decisions can have a tremendous impact on the clinical and financial performance of organizations.

In addition today's physician leader has to bring disparate groups of individuals together with often competing interests to follow an overall goal and vision. Setting that goal and vision will be the most important objective of a leader. If the goal is to decrease the readmission rate among patients who undergo a TJR, this requires bringing together surgeons, physical therapist, nurses, and social workers. Each individual reports to a different authority – the leader needs to set the goal of decreasing readmission rates and bring everyone together around that shared vision. They have to show how decreasing that rate will serve everyone's own interest. Commanding individuals to do certain tasks has been shown to be an ineffective method to achieve this goal.

WHY IS LEADERSHIP SO IMPORTANT IN HEALTHCARE TODAY?

CORRELATION BETWEEN LEADERSHIP AND QUALITY

Increasingly as the financial incentive transitions towards achieving improved outcomes, physicians will need to come together in a multi-disciplinary fashion to coordinate care. Achieving this level of quality will require leaders who can bring these disparate groups together in an effective and efficient manner. Research has demonstrated high correlations between patient satisfaction (being treated with respect, care, and compassion) and areas where health service staff is well led and have high levels of satisfaction with their immediate supervisors (Dawson et al. 2011). The same data suggests that there are low and declining levels of patient mortality in areas where the health care staff feel their work climate is positive and supportive. **Creating these types of environments are the responsibilities of leaders.**

In addition it is clear that achieving greater value in healthcare will require improvement in areas beyond what technology or the skill sets of individual practitioners can deliver. There have been numerous reports in the literature that have correlated various other factors to high quality care including better teamwork (Neily et al. 2010), interprofessional communication (Haynes et al. 2009), standardized care processes (Chen et al. 1999), process compliance (Dean et al. 2006), and organizational (Curry et al. 2011) and team-level (Edmondson 1996) culture. The leader has a strong role in creating an environment where these factors have a strong influence. Engaging the staff and creating a positive culture that affects the previously mentioned factors becomes the responsibility of leaders.

THE EVOLUTION OF LEADERSHIP THEORY

The study of modern leadership theory began with the question "Are leaders born or made?" Francis Galton claimed that certain individuals have the unique property of leadership and that this could not be developed (Galton 1869). For many years the academic literature devoted a considerable amount of attention to identifying the traits of successful leaders. The focus was to identify individuals with these traits and make them leaders. This theory was coined *trait leadership*.

In 1948, Stogdill performed a review of leaders and found that leaders are not always effective in every situation. He found that certain individuals could be leaders in one situation but not always in another (Stogdill 1948). This dispelled the notion that leaders are born and spurred a series of investigations to understand what makes an effective leader.

Paul Hersey and Ken Blanchard developed the situational leadership model in the 1970s stating that there is no single "best" style of leadership (Hersey and Blanchard 1977). Effective leaders are able to adapt based off the task that needs to be completed. They defined four behavior types that are necessary to be an effective leader:

- **S1: Telling** – this leadership style is based off a one-way communication whereby the leader tells the individual or group the what, how, why, when, and where to do a task. This type of leadership is more consistent with the surgeon in the operating room under a high stress or trauma situation. The S1 leadership style is best suited for situations where decisions need to be made quickly and clearly.
- **S2: Selling** – in this leadership style there is a two-way communication established between the leader

and the individual or group. It takes into consideration the socio-emotional support required to influence others to follow a process. This situation is appropriate for surgeons who are coming together to standardize implant use. As it is important for surgeons to change their current practices and for leaders to be sensitive to these changes, this leadership style helps to achieve greater buy-in among providers.

- **S3: Participating** – this style of leadership can be considered a shared decision making style whereby the leader is less *task oriented* and more concerned with *relationship building*. Often this leadership style is seen when providers from different specialties are coming together to build a multi-disciplinary program. This style is appropriate where no one individual has the decision-making authority to create a program and requires building consensus among all parties involved.
- **S4: Delegating** – delegating decision making to other individuals or groups marks this leadership style. A leader may be involved to monitor the progress but not the final decision maker.

One area of tension that leaders often face is when there is a misalignment in their leadership style and the situation. In situations where the decision-making and authority is clearly defined and rests with the leader, the S1 leadership style is appropriate. Often though leaders fail to adapt to the current situation and inappropriately use an S1 leadership style when building a consensus through a relationship is more important (i.e. S3). This misalignment between leadership and the situation or environment leads to ineffective outcomes.

TRANSACTIONAL VS TRANSFORMATIONAL LEADERSHIP

In 1978 James MacGregor Burns coined the term transformational leadership in his book, Leadership (Burns 1978). This is in contrast to transactional leadership.

In transformational leadership, Burns notes that a leader taps into a followers' higher needs, intrinsic motivations, and values, to inspire them to accomplish a task which they normally would not attempt to achieve. The end result of this style of leadership is to raise the level of confidence, conviction, and desire of followers to achieve a common goal. A transactional leadership style is one where the leader causes a follower to act in a certain way in return for something the follower wants to have. The transactional leadership is constantly appealing to the self-interests of the followers to achieve certain aims and objectives.

GOLEMAN'S CATEGORIES OF LEADERSHIP

Daniel Goleman described six categories of leadership based off his review of 3,000 mid-level managers (Goleman, Boyatzis, and McKee 2013). He analyzed the behaviors of these individuals and compared it to the corporate climate as well as profitability. From his review he came up with the following leadership styles (Table 1).

- **Coercive** – this style of leadership is similar to the S1 style. It is appropriate for a crisis situation when quick decisions need to be made. Most often this is seen in failing organizations that need an individual to make a quick turnaround in performance. Leaders have to be careful to not maintain this leadership style when the turnaround has occurred as this behavior can lead to a loss of motivation among employees as well as loss of independence.
- **Authoritative** – this leadership style can be most characterized through the phrase "Come with me". The leader who is authoritative presents a vision or direction to where an organization should head. This style is most appropriate when there is a tremendous amount of uncertainty (i.e. transitioning a practice from volume to value). The leader does not explicitly detail the steps necessary to achieve that vision – this is delegated to the employees. The job of the leader is to provide clarity on the direction of the organization and explain why that direction will lead them to success.
- **Affiliative** – this style of leadership is less task oriented and more focused on relationship building. Creating harmony among individuals in the group is characteristic of this leadership style. The leader who uses this style usually benefits from the loyalty of employees. The affiliative style is often marked by flexibility among employees as their connection to their leader allows them to take greater risks. Leaders with this style are more likely to reward employees or deliver continuous positive reinforcement. Unfortunately the downside of this leadership style is a lack of improvement for poor performers, as the leader does not want to sacrifice their relationship with the employee by criticizing their performance.
- **Democratic** – a leader who spends time listening to employees with the goal of getting commitment, trust, respect, and buy-in marks this leadership style. This leadership style requires the individual to be patient and forsake his or her own ambitions. If successful the benefit is achieving flexibility and responsibility among employees. To a large degree a democratic leadership style can result in greater autonomy for employees. Unfortunately this leadership style can result in endless meetings and prolonged decision-making. If used often people will begin to assume that the leader cannot make their own decisions, devaluing the power and respect of a leader.
- **Pacesetting** – a leader setting a high performance standard among employees as well as themselves marks this leadership style. Under the pacesetting style poor performers are asked to work harder and better. A "hard charging" leader will often be dismissive of individuals who cannot keep up with their demands. Unfortunately this orientation to task leaves employees with little flexibility and feelings of low responsibility. Environments with leaders of this style will often report low morale. A pacesetting style is most appropriate when all individuals in the team

are self-motivated and highly competent (i.e. Wall Street bankers). This style can often lead to results beyond expectations – but leaders should be careful to choose this style in the appropriate climate.

- **Coaching** – This style of leadership is marked by a leader identifying the strengths and weaknesses of an employee and "coaching" them to achieve their career aspiration. Inevitably the dialogue involved in coaching an employee results in the development of a relationship between the leader and the employee. This helps to build trust and confidence which leads to greater worker productivity. Although often seen as time consuming, many businesses have come to understand the long-term benefits of this approach and are often tying in a leader's bonus to the quality of their coaching.

HOW DO YOU RATE THE SUCCESS OF LEADERSHIP IN HEALTHCARE?

There has been a tremendous amount of effort devoted to leadership training in the business community. Success in leadership is often based off revenues or other performance targets. Annual reviews are critical components of many jobs and leadership success can be correlated to these measures.

As outcomes for many different metrics are increasingly becoming common in healthcare, soon enough metrics will be developed to judge the success of leadership. Currently success can be measured through financial metrics or academic productivity, as these are easy to measure for groups or departments. As there is soon to be a greater consensus on accurate measures of outcomes, quality, patient and employee satisfaction – it will soon be easier to objectively measure the success of leaders in healthcare.

REDEFINING THE TRADITIONAL TOOLS OF LEADERSHIP

Historically leaders in the medical profession were defined based off their content knowledge of the field. The surrogates of knowledge (i.e. # of academic publications or grants) helped define authority. Increasingly though it is clear that while being perceived as an expert in a field can provide tremendous recognition, it does not lead to changes in behavior among practitioners. That is why there is an evolution currently in leadership towards the individual who can engage physicians, build multidisciplinary teams, as well as develop a culture of improvement. The question is what kind of levers of control can a leader use to influence or change behavior among practitioners. Some of the levers traditionally used by orthopedic leaders include setting a budget, financial incentives, the ability to hire and fire individuals, and operational control (i.e. block time and office space allocation, setting call schedules, etc.) – these are examples of hard power. Within orthopaedic surgery soft power was conferred by being seen as a knowledge expert – **increasingly the ability to develop relationships that influences behavior will have a greater impact.** The challenge for physician leaders of the future will be to use the skills of influence and persuasion to convince other physicians to change their behavior.

CONCLUSION

The changes in healthcare today are clearly asking for a new generation of leaders. The uncertainty around the transition to a value based system along with the future of healthcare post-pandemic will require leaders who can set a vision and strategy for an organization, bring people together to achieve that vision, and clearly articulate and execute a set of tactics to achieve these goals. Many individual orthopedic surgeons will need to step up to provide stability post-Covid. This paper provides a foundational understanding of the skill sets for leadership needed to effectively navigate this uncertainty.

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