



CONCEPTUAL PAPER

Lessons from the Art of War: How an Ancient Chinese Manuscript Can Help to Navigate the Future of Healthcare

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Abstract

Our healthcare system is consistently failing to achieve its primary goal- to effectively and efficiently take care of the health and well-being of patients. Many say a key contributor to its failure is the inability of stakeholders to adapt to the system's constant state of change. As our healthcare system continues to evolve at a very rapid rate, both physicians and administrators must adapt or risk dire consequences. To help all invested parties navigate these treacherous waters, we suggest a guide based on the lessons illustrated in Sun Tzu's The Art of War. Various industries have successfully adapted this ancient Chinese text to direct their practices, but the text has yet to be applied to healthcare strategy in a meaningful way. This article is broken down into six practical lessons from Sun Tzu's The Art of War that apply directly to the fluctuating environment in medicine. All levels of a healthcare organization can utilize these strategies to help effect change the industry desperately needs.

Keywords: Healthcare administration, Healthcare delivery, Improvement strategies, Patient-centered practice

Introduction

The healthcare industry is in a state of constant flux. Dramatic changes are looming on the horizon, ranging from technological advancements to national policy changes to new healthcare delivery models [1]. While both patients and healthcare providers have the potential to benefit significantly from this transformation, many are concerned that human factors may impede such growth [1]. Healthcare professionals are notoriously resistant to change yet change they must or risk dire consequences for all involved [2]. This article serves to provide both physicians and administrators some of the tools they need to prepare for this transformation. We will attempt to do so by utilizing Sun Tzu's principles from The Art of War and providing parallels to illustrate the applicability of the book's lessons to our current health care system. Our aim is to assist healthcare professionals in making more informed decisions and in providing the most effective and efficient care for their patients.

The Art of War is an ancient military treatise written over 2,500 years ago by Sun Tzu, a Chinese general, philosopher, and military strategist. Sun Tzu's teachings outline the tactics needed to prevail in battle. The original text is divided into 13 chapters, each of which focuses on a specific aspect of warfare [3]. Widely utilized in the military and intelligence sectors, the text also has great value beyond the battlefield. The same principles outlined in The Art of War have been applied to fields as varied as business, education, and law, but

to our knowledge, it has not been utilized in any meaningful way in the context of healthcare. Sun Tzu's lessons are applicable to many situations and are an asset for those who desire to improve patient care while promoting an efficient and seamless transition towards the future of the industry. Tailored for healthcare professionals, we break down six practical lessons from Sun Tzu's The Art of War and apply them to the changing face of medicine.

Discussion

Lesson 1: Laying plans

The first chapter of The Art of War emphasizes the importance of pre-conflict preparation. According to Sun Tzu, before engaging in a conflict, a soldier must thoroughly understand all aspects of the war itself. Before a battle, a general must calculate all possible decisions and outcomes. Without these extensive calculations, he is doomed to defeat.

Similarly, this concept applies to all levels of healthcare. According to Tzu, without any foresight and planning before tackling a situation, the outcome will always be failure. This can be seen for example, in the case of the Conservative-Liberal Democrat Coalition Agreement in Great Britain

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[4]. This agreement was drafted by members of the British Parliament from both parties after the 2010 general election. This coalition was initially applauded as it was the first formal coalition in the United Kingdom in the post war period. The aim of the agreement was to reform medical workforce education and training. The attempt proved unsuccessful due in large part to the lack of extensive preparation by the members of parliament. Constituents saw the politicians as disjointed from the reality of their healthcare experience and believed that the reform would not benefit the patients it was designed to serve. Hospitals also did not support the government's plan as most of them lacked the infrastructure necessary to handle the proposed changes [5]. Without the buy in from these stakeholders, the agreement was a failure. As this case illustrates, it is essential to be methodical and calculated when devising a plan, or failure is the most likely outcome.

Using tools such as SWOT analysis can be helpful in fully understanding a situation and can minimize the risk of overlooking key areas. SWOT is an acronym for strengths, weaknesses, opportunities, and threats and is a systematic approach widely used in the business world to evaluate both internal and external environments [6]. Many have applied SWOT analysis to help the healthcare industry find ways to improve patient outcomes while containing costs. Helms et al, for example, utilized SWOT analysis to make the case for an increased involvement of the information technology sector in the healthcare industry [7].

The SWOT analysis can also be helpful for individuals. Physicians can use it to understand the environment in which they work and find reasonable ways to approach obstacles. For example, physicians and other healthcare providers often lack a fundamental understanding of the business side medicine. They are so busy caring for patients that many of them know little about topics such as healthcare policy and data analytics. Using an approach like SWOT analysis allows physicians to recognize areas that they may already excel at and bring to light areas that need improvement. They are also able to further expand on opportunities that enable them to address these weaknesses. Only when healthcare professionals understand the system of which they are an integral part can they begin to effect meaningful change.

Lesson 2: Cultivating a team's collaboration

Sun Tzu was a realist. He knew that engaging in war can result in both victories and defeats, both on the battlefield and off. He understood that there would be periods when his soldiers would feel defeated, and there would be a depletion in their resources. An accomplished strategist, Sun Tzu espoused that victory was dependent on the engagement of his soldiers and that there would be no victory unless the entire army shared a cohesive set of beliefs. His soldiers had to feel vested in the war to commit wholeheartedly and without reservation.

Similarly, if the future of healthcare is to be a successful one, it must involve the engagement of all members of the healthcare team. Interprofessional team-based practices have started

to become more prevalent in the healthcare environment. In interprofessional teams, a group comprised of various individuals with different backgrounds, training and talents all work together towards a common goal. The Veterans Health Administration has adopted such an integrated approach by forming what they refer to as patient aligned care teams (PACT) which includes various healthcare professionals united by common objectives. Placing several individuals with different backgrounds, strengths and weakness onto a single team affords much greater impact and progress towards a goal than everyone could make alone [8]. The best way to engage all members of the team is to stress their shared purpose --patient care. Putting the needs of patients first and foremost assures all involved are invested. Compassion for others is especially important when sacrifices must be made, such as losses in autonomy or decreases in salary [9].

In addition to developing a cohesive vision for the future, healthcare leaders must not neglect other means of engagement. Vital are built-in incentives to engage team members, administrators, and health care providers alike. These can be monetary incentives tied to quality and performance but can also be non-monetary, such as awards and involvement in succession planning for future leadership positions. Such incentives are well known to be effective ways of promoting engagement [10].

Lesson 3: Waging the cost of war

Sun Tzu was not merely a general; he also had a keen sense of economics and was fully aware that war has financial costs. In the Art of War, Tzu discusses in detail the costs of war. He describes how a general must preserve resources to sustain an army in a long battle and explains how each resource must be allocated to be the most effective. These lessons have applicability to the world of medicine as healthcare, like war, is an expensive venture. One of the costliest areas in the hospital is the intensive care units [11]. Although they only serve a small fraction of hospital patients, they can use up to 40% of hospital costs [12]. As Tzu explains, it is important to maintain enough resources and use them efficiently to support a long battle, or in this case, an ICU. Kim et al. analyzed around 190,000 hospitalizations across 15 hospitals to look at hospital operations centered around ICU admission decisions to reduce costs while still maintaining good patient outcomes. They showed that by allocating ICU resources to only those that met admission criteria, they could save about \$1.9 million per year in a simulated ICU setting with 21 beds [12]. Putting a policy in place that specifies strict admission criteria allows for resources to be conserved for future ICU stays.

Although cost centered care is a notion which many healthcare providers are reluctant to embrace, it is one that is well understood by administrators. Those that care for patients are often altruistic individuals by nature and desire to maintain the status quo. They assert that patients, not consumers, should be at the center of the healthcare model [2]. While patients must be a primary consideration, administrators are keenly aware that healthcare is also a business. Healthcare providers

have no choice but to accept this and to be mindful of how cost containment will be increasingly important in the revamp of our healthcare system. Unfortunately, those that do not get on board will be weeded out of the system by consumer-directed initiatives, pay for performance models and physician rankings.

Lesson 4: Effective communication is key

In *The Art of War*, one of the greatest strengths of a victorious army general is described as the bond he forms between himself and his army. The relationship, Tzu wrote, must develop around mutual respect and a commitment to serve the people. Tzu describes a talented general as one who can gauge the morale of his army and know what they need and when they need it. Just as a general must understand the needs of his army, a doctor must be aware of the needs of not only patients, but other members of the healthcare team as well.

Effective communication is vital in the changing landscape of medicine. Medicine is increasingly becoming a team effort. Although physicians still lead in most respects, fewer and fewer decisions are made by physicians in isolation [13]. Many organizations are employing newer organizational structures and leadership models that use more midlevel providers and ancillary staff as crucial members of the healthcare team. Increasing autonomy of midlevel providers can be a point of contention for some physicians who are used to being in charge. Communication is the key to adapting to these changes. Physicians must learn to become adept at professionally interacting with all members of the healthcare team. At the same time, doctors should understand that they may not be able to make all decisions by themselves and may instead need to consult with others. In most cases, there is an increased chance for a successful outcome when there is mutual respect and open communication from all sides. Per Sun Tzu, a principled general puts his faith in his counsel and trusts their advice to form a strategy that will lead to the most favorable outcome.

Lesson 5: Having the character of a principled leader

As the commander of the army, a general must be strong if he expects his army to be powerful. Tzu stressed that if the general could not lead robustly, an army will fail based on the weak foundation of its leader. Understanding the tenants of strong leadership will become progressively important as more and more leadership roles are opened to clinicians. Increasingly common are physicians in the C-suite, acting as senior executives in many newly restructured organizations. Many boards are seeing that physicians are uniquely positioned to help address critical clinical issues such as population health management and informatics [14]. For example, when business giants Jeff Bezos, Jamie Dimon and Warren Buffet and started their new healthcare venture, they appointed none other than acclaimed surgeon Atul Gawande to man the ship [15]. As a practicing surgeon, they felt he could bring first-hand clinical knowledge and apply it in a new and unique way. Most importantly, to these leaders in business, Dr. Gawande's

life-long commitment to helping others was thought to be an invaluable asset in leading a successful enterprise.

As physicians rise to fill these leadership positions, they must become the kind of leaders that inspire and motivate others as well as command respect. First and foremost, in our mind should be the well-being of our patients and the welfare of those we lead. Our patients and those whom we manage are akin to the soldiers in an army for whom a general is responsible. A passion for healthcare and the business of medicine is integral. Lastly, as physicians, our integrity must be unquestionable and our commitment unwavering.

Lesson 6: Knowing everyone's strengths and weaknesses

Per Sun Tzu, bolstering an army's strengths and tackling an army's weaknesses is the surest way to control the outcome of a war. The same principle can be applied to the relationship between healthcare providers and administrators. Both parties possess shortcomings that can be corrected when the two entities collaborate. Tzu uses flowing water as a metaphor for a military attack in which all sides are brought down to their lowest points. When an organization has a distinct weak point, it is doomed to falter. If both healthcare providers and administrators can strengthen these pitfalls, they can raise their organization to new heights of success. In a study of high performing hospitals, some of the cohesive themes in these organizations were a positive work environment, active performance monitoring, and interdisciplinary teamwork [16]. These findings center around the importance of gathering data to capture where an organization excels and where it may need improvement. It also supports Tzu's notion that a leader must understand these points and be able to act on them.

Utilizing one another's other's strengths and minimizing each other's weaknesses will become increasingly important as the lines between the two roles of physician and administrator blur, and they work more closely together. Gone are the days when administrators would stay in their offices managing business decisions while doctors remained in their clinics focused solely on patient care.

Another commonality between high performing hospitals was receptive and responsive senior management [16-18]. This is important as more often, administrators and physicians are working side by side, especially given the shift towards value-based incentives and quality care. With this more symbiotic relationship will come necessary changes in roles and responsibilities. Shared governance councils and joint decision making will be valuable in this new era of collaboration. Inter-professional learning and strengthened integration are also important factors to be considered. Utilizing such alliances and resources will be the key to success in the new healthcare model.

Practice Implications

As we have shown, *The Art of War* is not only essential reading for kings and generals. The ancient text has just as much place in the board room and the exam room as it does in the war

room. Sun Tzu's lessons for victory in war can be adapted to all levels of a healthcare organization, allowing those physicians and administrators who strategize intelligently to be victorious. As stakeholders in the health and well-being of our patients, physicians and administrators must work together to develop a solid plan to navigate the continued uncertainty and upcoming changes to our healthcare system.

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