

# It's Time to Get Serious About Teaching Business in Orthopaedics

Michael D. Eckhoff, MD

*Brian D. Allgood Army Community Hospital, Camp Humphreys, Republic of Korea*

## EDITORIAL

Surgeons go into medicine to help people and make a difference, not to run a business. Our altruistic motivations can conflict with the reality of patient care costs, poor management, and lack of attention to human resources creating mental and emotional strain on both sides of the clinical encounter. Healthcare spending in 2021 in the United States was \$4.3 trillion and made up 18.3% of the Gross Domestic Product.<sup>1</sup> These numbers prove that medicine is not just a business, but a dauntingly large business. It's time to stop ignoring the facts and accept business as an integral part of medicine. Once we accept medicine as a business, we can learn to use it to benefit ourselves and our patients.

Business concepts and processes are pervasive throughout clinical practice. Day-to-day activities mirror many topics in standard business education. Coding and billing are accounting and finance. Clinic and operating room efficiency is supply chain management and logistics. While other fields such as marketing, information technology, contract law, and data analytics are direct bridges from the business world into medicine. Methodologies such as Six Sigma, Kaizen, and Total Quality Management do not exist solely in manufacturing and can be applied to medicine for process improvement.

Focusing on accounting as it relates to clinical practice demonstrates the benefit of formal education. Mangini et al. found that 17% of residents and 42% of staff surgeons at a Level 1 trauma center had formal training in coding. Their results, along with Varacallo et al., found an overall coding and billing accuracy of 43-51% among residents and 58-72.8% among staff. Those that had experience in formal coding and billing training were significantly more accurate.<sup>2,3</sup> Greenky et al. found a 29% improvement on a standardized billing and coding exam after a single 45-minute instructional lecture for residents.<sup>4</sup> Dezfuli et al. in 2012 evaluated the

impact of clinic documentation on billing at an academic center and found, compared to Medicare normative data, the Orthopedic clinics had fewer level 4 and more level 3 encounters.<sup>5</sup> That difference in encounter level alone amounted to \$82,281.11 of lost revenue in a year (\$106,965.44 when adjusted for inflation to 2022). That's more than the average yearly salary of a registered nurse (\$77,600), and over twice the salary of the Medical Records Specialist performing coding and billing (\$46,660).<sup>6,7</sup> This appropriate compensation for what you already do clinically is achieved from improved documentation alone. This lost clinic revenue likely pales in comparison to the amount of resources lost or wasted in the operating room.

The implementation of resident education has already started in some programs across the nation. Althausen et al. identified 20 different business topics they integrate into their trauma fellowship and in 2014 published their evidence-based curriculum for all to use.<sup>8,9</sup> For staff surgeons, staying current on new literature is key to keeping your practice relevant and providing the best patient care possible. However, as Thomas et al. identified, only 3.4% of articles published in the top general Orthopaedic journals focus on business.<sup>10</sup> Because of this, the Journal of Orthopaedic Business has taken up the mission to publish the most up-to-date business-relevant studies in Orthopaedics.

The groundwork is already being laid for the widespread implementation of business education in Orthopaedics, and it's time for us to integrate it into our Orthopedic education. The next step is molding what exists to your practice, department, and residency. While future research endeavors need to be undertaken to expand and improve the future of Orthopaedic business practices, the first step is to increase business literacy within the Orthopaedic community. Understanding business concepts and applying them to your clinical practice can improve revenue, reduce costs, and

increase efficiency and workflow. Through these actions, we can maximize resources to take care of patients and ultimately fulfill our altruistic motivations that started our journey into medicine in the first place.

*(J Ortho Business 2023; Volume 3, Issue 1: Pages 1-2)*

### REFERENCES

1. Services C of M& M. National Health Expenditure Data: Historical. Published 2022. <https://www.cms.gov/research-statistics-data-and-systems/statistics-trends-and-reports/nationalhealthexpenddata/nationalhealthaccountshistorical>
2. Mangini M, Dowd T, Cuenca R. Billing and Coding Education and Knowledge Among Military Orthopaedic Surgeons. *J Orthop Bus.* 2022;2(2):1-6. doi:10.55576/job.v2i2.15
3. Varacallo MA, Wolf M, Herman MJ. Improving Orthopedic Resident Knowledge of Documentation, Coding, and Medicare Fraud. *J Surg Educ.* 2017;74(5):794-798. doi:10.1016/j.jsurg.2017.02.003
4. Greenky MR, Winters BS, Bishop ME, et al. Coding Education in Residency and in Practice Improves Accuracy of Coding in Orthopedic Surgery. *Orthopedics.* 2020;43(6):380-383. doi:10.3928/01477447-20200827-10
5. Dezfuli B, Smith JL. Level of billing as a function of resident documentation and orthopedic subspecialty at an academic multispecialty orthopedic surgery practice. *Orthopedics.* 2012;35(11):1655-1659. doi:10.3928/01477447-20121023-26
6. Bureau of Labor Statistics USD of L. Registered Nurses. *Occupational Outlook Handbook.* Published 2021. Accessed December 26, 2022. <https://www.bls.gov/ooh/healthcare/registered-nurses.htm>
7. Bureau of Labor Statistics USD of L. Medical Records Specialist. *Occupational Outlook Handbook.* Published 2021. Accessed December 26, 2022. <https://www.bls.gov/ooh/healthcare/medical-records-and-health-information-technicians.htm>
8. Althausen PL, Lybrand KE. The Role of Business Education in the Orthopedic Curriculum. *Orthop Clin North Am.* 2018;49(4):445-453. doi:10.1016/j.ocl.2018.05.006
9. Althausen PL, Bray TJ, Hill AD. Reno orthopaedic trauma fellowship business curriculum. *J Orthop Trauma.* 2014;28(7 SUPPL.). doi:10.1097/BOT.000000000000144
10. Thomas N, Sandler A, Fernandez I, et al. Orthopaedic Business is the Focus of 3.4% of Articles in Top General Orthopaedic Journals. *J Orthop Bus.* 2022;2(1):10-18. doi:10.55576/job.v2i1.11