

# Assessing the Preparedness of Orthopaedic Surgery Residents in Navigating the Finances of a Career in Medicine: A Cross-Sectional Study of Knowledge Gaps and Educational Needs

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**INTRODUCTION:** Orthopaedic surgery residents, like many medical trainees, frequently lack adequate exposure to the financial aspects of clinical practice. Despite the increasing complexity of healthcare systems, residency curricula focus on clinical and operative competencies, often neglecting essential business knowledge. Other studies have suggested that such deficits may contribute to financial stress and job dissatisfaction, potentially affecting physician well-being and patient care. While the evidence base continues to evolve, there is growing recognition of this association within the medical community, underscoring the importance of addressing these systemic challenges. The primary objective of this study was to determine if orthopedic surgical residents desire more exposure to the business of medicine and to examine their knowledge of basic finance concepts that are imperative for residents to understand as they pursue their career goals.

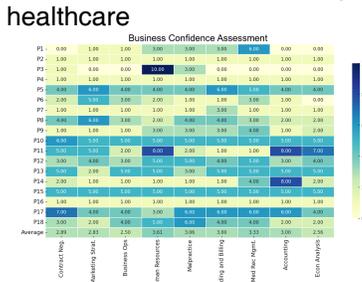
**METHODS:** This study utilized a cross-sectional survey design, targeting orthopaedic surgery residents enrolled in an ACGME-accredited orthopaedic surgery residency. A structured, 10-minute questionnaire was administered to assess residents' baseline knowledge of critical finance concepts, including coding, productivity, income streams, and practice management. In addition, the survey measured residents' interest in further financial education and their perceptions of barriers to integrating such education into residency programs. Comparative analysis using the Kruskal-Wallis test was performed to compare postgraduate years (PGY), clarify potential knowledge disparities, and highlight areas for curriculum enhancement. A threshold p-value of 0.05 was used for statistical significance.

**RESULTS:** The results (n=18) revealed significant gaps in residents' confidence in their knowledge of critical finance concepts relating to orthopaedic surgery with an average confidence level of 2.97 out of 10 across all concepts. Interestingly, no statistically significant differences were observed with resident understanding of essential concepts, productivity, ancillary income generation, and practice models lacking across all years of training. Additionally, only 28% of residents expressed an understanding of what it means to be a partner in a practice. Most importantly, 100% of the respondents expressed a strong desire (6.94 out of 10) for expanded business training within their residency programs, citing a lack of structured resources and time constraints as key barriers to implementation. Slight variations in perceived knowledge across PGYs were also found in areas such as malpractice, coding, and record management, highlighting growth during training.

**DISCUSSION AND CONCLUSION:** The findings underscore a critical need for comprehensive business education within orthopedic surgery residencies. Addressing these educational gaps by integrating more business concepts into the residency curriculum could enhance residents' financial literacy, improve physician career satisfaction, and foster more effective healthcare resource management.

Functional Knowledge Test	% Correct Answered
Who qualifies for Medicare?	7.69%
What is ancillary income in the context of a surgical practice?	84.62%
Which of the following most accurately describes the relationship between wRVUs and physician compensation across all practice types?	46.15%
How are wRVUs assigned to different medical services and procedures?	46.15%
In the ICD 10 coding system, what is the purpose of the seventh character extension?	46.15%
Which of the following best describes the concept of a Diagnosis Related Group (DRG)?	38.46%
Are physicians allowed to own and run a hospital?	46.15%
<b>Post-Test Confidence Survey</b>	
After taking the test and survey, how confident are you in your ability to navigate the business aspects of your future orthopedic surgery practice? (1 = I know nothing at all; 10 = I have a complete understanding)	2.15

wRVU, work relative value unit; ICD, International Classification of Diseases;



Topic Categories	Specific Interests
Business Operations and Management	Budgeting, salary vs RVU, private practice overheads, buying into a practice, practice management
Billing and Reimbursement	Billing, how to bill office visits appropriately, coding, RVUs, reimbursement
Accounting and Financial Strategies	Accounting, financials, investment and tax strategy
Contract Negotiations and Employment Models	Contract negotiations for first jobs, contract negotiation, RVUs, reimbursement, employee setups
Insurance and Reimbursement Models	Insurance models, reimbursement, peer-to-peer reviews
RVU, relative work unit	