Original Article

Attitude of hand surgeons toward Affordable Care Act: A survey of members of American Society for Surgery of the Hand[☆]

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ABSTRACT

The purpose of this study was to examine current attitude of hand surgeons toward the Affordable Care Act (ACA). An electronic survey was sent to members of American Society for Surgery of the Hand (ASSH) to examine their attitude toward the Affordable Care Act. 974 ASSH members responded to the survey (33% response rate). The majority of respondents were male (89%), trained in orthopedic surgery (81%), and in private practice (75%). 41% of respondents rated their knowledge of the ACA as average. Respondents disagreed that the ACA would improve healthcare in the United States (median 2, mean 2.06, scale 1–5), while agreeing that the ACA would decrease reimbursements specific to hand surgery (median 4, mean 4.11).

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1. Introduction

The Patient Protection and Affordable Care Act, more commonly known as the Affordable Care Act (ACA) or “Obamacare,” was signed into law on March 23, 2010. Several challenges facing the American health care system led to the development of this law. Nearly 50 million people, a sixth of the United States (US) population, were reported not to have health insurance in 2010.¹ The same year, health care spending accounted for 17.6% of gross domestic product (an estimated 2.5 trillion dollars), which far exceed that of any other industrialized country such as Netherlands (12.0%), Germany (11.6%), or France (11.6%).² Despite this spending, the quality of health care in the United States has compared poorly to the rest of the world, ranking 37th in the 2000 World Health Organization report and 6th in the 2010 Commonwealth Fund report.^{3,4}

Designed with the intent to address these issues, the ACA is a complex law that spans nearly one thousand pages.⁵ The bill's most notable provisions include expansion of Medicaid, a mandate to purchase insurance, creation of insurance marketplaces, establishment of limits on insurance companies regarding patient exclusion, implementation of electronic medical records, and restructuring of the Medicare reimbursement system.^{6–9} There has been vigorous debate regarding the impact of these provisions on quality of and access to health care services, including the potential burden these provisions may place on individual practices. The ACA's complexity has also led to concerns about the extent to which health care providers understand the new health care reform law.¹⁰ Despite the criticism, the ACA was constitutionally upheld by the US Supreme Court in 2012 and has been gradually implemented.^{11,12} The purpose of this study was to examine the current attitude of hand surgeons toward the ACA, assess their self-described knowledge of the law, and ascertain projected changes in practice plans.

2. Materials and methods

This survey study was approved by the American Society for Surgery of the Hand (ASSH) and our Institutional Review Board before distribution.

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2.1. Survey design and distribution

An anonymous web-based survey was developed and electronically delivered to members of the ASSH. Per ASSH guidelines, the survey was sent twice at one-month intervals (March and April 2014). The survey consisted of 31 questions and was formatted to a single web page (Fig. 1). Section 1 of the survey collected data on demographics, practice type, and payer make-up. Section 2 of the survey queried the respondents' self-reported knowledge and preparedness regarding the ACA. Section 3 examined the respondents' attitude toward the ACA, including the ACA's potential impact on health care quality, reimbursement for hand surgery, and access to emergent and elective hand surgery. Section 4 asked the ASSH members if the ACA would alter their practice plans. When applicable, a five-point Likert scale was utilized (strongly disagree = 1, disagree = 2, neutral = 3, agree = 4, strongly agree = 5).

2.2. Data analysis

Online survey data was exported into Microsoft Excel (Microsoft Corporation, Redmond, WA). Statistical analysis was performed utilizing Stata11 statistical package (StataCorp, College Station, TX). Descriptive statistics were generated. Bivariate statistical analysis was performed using the chi-squared test

where appropriate. Likert scale data was treated as ordinal variables without equal distribution between categories, and the data was analyzed using non-parametric statistics (Wilcoxon Rank Sum test). Median and mean values and ranges were generated. All *p* values were based on non-parametric analyses, and a *p* value of ≤ 0.05 was considered to be statistically significant.

3. Results

3.1. Demographic data

A total of 974 ASSH members responded to the survey (33% response rate). The geographic regions that generated the most responses were the Pacific Coast, South Atlantic, Mid-Atlantic, and eastern Midwest (Fig. 2a). The majority of respondents were male (89%), trained in orthopedic surgery (81%), in private practice (75%), and had more than 15 years in practice (56%) (Fig. 2b–e). Nearly all of them (97%) had completed a hand fellowship. 45% worked in a small group practice, while 22% worked in a hospital, 17% worked in a large multispecialty group, and 14% were in solo practice. Clinical responsibilities made up the majority of respondents' work, with less time dedicated to research and administrative duties (data not shown). The anticipated primary payer was most commonly private forms of insurance, followed by Medicare, Medicaid, and uninsured patients (data not shown).

I. Demographics (questions 1-19)	
1. Age	7. Completion of hand fellowship
2. Gender	8. Type of practice
3. Race	9. Practice setting
4. Region of practice	10. Frequency of hand trauma call
5. Training background	11. Payer make-up of practice
6. Years in practice	12. Other questions

II. ACA Knowledge and Preparation (questions 20-24)	
1. Have you received any training on the coming changes related to the ACA?	No Yes ☐ ☐
2. If yes, what type of training have you received?	<input type="text"/>
3. How would you rate your knowledge of the ACA?	Very poor Poor Average Good Excellent ☐ ☐ ☐ ☐ ☐
4. How well are your major professional organizations preparing you for the changes related to the ACA?	☐ ☐ ☐ ☐ ☐
5. What materials have you received concerning the ACA?	<input type="text"/>

III. Attitude Toward the ACA (questions 25-28)	
	Strongly disagree Disagree Neutral Agree Strongly agree
1. The ACA will improve health care in the United States	☐ ☐ ☐ ☐ ☐
2. The ACA will decrease reimbursements in hand surgery	☐ ☐ ☐ ☐ ☐
3. The ACA will improve access to emergent hand surgery	☐ ☐ ☐ ☐ ☐
4. The ACA will improve access to elective hand surgery	☐ ☐ ☐ ☐ ☐

IV. Impact of the ACA on Practice (questions 29-31)	
1. Will the ACA cause you to retire earlier than planned?	No Yes ☐ ☐
2. Will the ACA cause you to alter your practice?	☐ ☐
3. Reasons for retirement or altering practice?	<input type="text"/>

Fig. 1. Summary of survey questions.

Fig. 2. Demographic data. (a) Geographic distribution of responses (areas highlighted in color provided the highest number of responses). (b–e) Demographic data based on gender (b), training background (c), practice environment (d), and years in practice (e) with % values representing the percentage of total responses. NR = no response. (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)

3.2. ACA knowledge and preparation

When asked to rate their knowledge of the ACA, nearly one third of respondents (31%) reported having poor or very poor knowledge of the law (Fig. 3a). Furthermore, 84% of respondents reported receiving no formal education on the ACA (Fig. 3b). 53% reported poor or very poor preparation from their major professional organizations on the upcoming changes related to the law (Fig. 3c). When asked to list the materials they had received on the ACA, 56% responded with “very little” or “none.” Only 13 ASSH members (5%) reported attending lectures or receiving formal instruction on the law (Fig. 3d).

3.3. Attitude toward the ACA and impact of the ACA on practice

68% of the responding ASSH members disagreed or strongly disagreed that the ACA would improve health care in the United States, resulting in a median Likert scale score of 2 and a mean score of 2.06 (Fig. 4a). 79% agreed or strongly agreed that the ACA would decrease reimbursements specific to hand surgery (median 4, mean 4.11) (Fig. 4b). The majority of respondents also did not believe that the ACA would improve access to emergent (median 2, mean 2.10) or elective (median 2, mean 2.30) hand surgery (Fig. 4c, d). 37% believed that implementation of the law would cause them to retire earlier than planned (Fig. 5a) and 51% believed that they

a. How would you rate your knowledge of the ACA? **b. Have you received any training on the ACA?** **c. How well are organizations preparing you for the ACA?** **d. What materials have you received on the ACA?**

Fig. 3. ACA knowledge and preparation. (a) Knowledge of the ACA. (b) Training on the ACA. (c) Preparation by major professional organizations. (d) Preparatory materials. 251 of the surveyed members responded to the question in part d. NR = no response.

a. ACA will improve health care in the United States **b. ACA will decrease reimbursements for hand surgery** **c. ACA will improve access to emergent hand surgery** **d. ACA will improve access to elective hand surgery**

Fig. 4. Surgeon response regarding the ACA. ASSH members were asked whether ACA will (a) improve health care in the United States, (b) decrease reimbursements for hand surgery, (c) improve access to emergent hand surgery, and (d) improve access to elective hand surgery.

Fig. 5. Impact of the ACA on (a) retirement plans and (b) practice.

would have to significantly alter their practice as a result of the ACA (Fig. 5b).

Stratified analysis revealed several notable differences. In all parts of the survey, academic-practice ASSH members showed a more favorable outlook on the ACA compared to their private-practice contemporaries, including the law's impact on the quality of health care, reimbursements, access to care, and retirement plans (Table 1). In most categories, female respondents similarly held a more positive outlook on the ACA compared to their male colleagues (Table 2). When compared to the orthopedic surgery-trained hand surgeons, plastic surgery-trained respondents were more optimistic that the ACA would improve access to emergent hand surgery ($p = 0.035$) without affecting their practice type ($p = 0.04$) (data not shown). No significant trends were seen based on age or proportion of private-insurance patients.

4. Discussion

The ACA represents a significant regulatory alteration to the US health care system. The law's goals are to increase health insurance coverage and improve health care quality, while controlling costs associated with health care delivery.^{6–9} The ACA incentivizes states to expand Medicaid eligibility to anyone whose income is below 133% of the federal poverty level and also mandates that every individual obtain health insurance.^{5,6,9} In an effort to reduce premiums, the law creates insurance market places, where

individuals can compare various insurance plans and potentially qualify for income-dependent discounts and tax deductions.^{5,9} The ACA also restricts insurance companies from denying coverage, charging patients higher rates for pre-existing conditions, or capping lifetime expenditures.^{5,6,9}

Since its signing, the ACA has received significant criticism from both legislators and physicians.^{7,11,12} A 2011 Ohio Doctor Survey showed that 79% of physicians believed that the ACA will "reduce the quality of care in America" and 82% thought the ACA will "give physicians less freedom and power to care for their patients".¹¹ Another 2011 survey by the Deloitte Center found that physicians were split on whether the ACA was a "good start" or a "step in the wrong direction".¹² Surgical specialists were more pessimistic, with only 28% thinking the ACA was a "good start".¹² A more recent survey of otolaryngologists found that 75% were either "opposed" or "strongly opposed" to the ACA and a 2014 survey of plastic surgeons showed that 69% did not think the law would "positively affect their practice".^{7,13}

Our survey indicates that hand surgeons similarly have an unfavorable attitude toward the ACA. 68% of responding ASSH members did not believe that the law would improve health care in the US. Less than 20% thought the ACA would improve access to either emergent or elective hand surgery. This is despite significant expansion of insurance coverage and already 9.5 million fewer uninsured adults.¹⁴ One potential concern the survey respondents may have is that with a fixed supply of providers, the influx of

Table 1
Stratified analysis: academic practice versus private practice.

	Academic Mean Likert score or % Yes	Private Mean Likert score or % Yes	p-value
ACA will improve health care in the U.S.	2.38	1.97	<0.001
ACA will decrease reimbursements for hand surgery	3.97	4.16	0.001
ACA will improve access to emergent hand surgery	2.35	2.02	<0.001
ACA will improve access to elective hand surgery	2.56	2.20	<0.001
Will ACA cause you to retire earlier than planned?	22.9% Yes	42.2% Yes	<0.001
Will ACA cause you to alter your practice?	33.5% Yes	56.9% Yes	<0.001

Table 2
Stratified analysis: female versus male.

	Female Mean Likert score or % Yes	Male Mean Likert score or % Yes	p-value
ACA will improve health care in the U.S.	2.40	2.03	0.002
ACA will decrease reimbursements for hand surgery	4.04	4.12	0.28
ACA will improve access to emergent hand surgery	2.42	2.07	0.002
ACA will improve access to elective hand surgery	2.58	2.27	0.02
Will ACA cause you to retire earlier than planned?	24.5% Yes	38.7% Yes	0.007
Will ACA cause you to alter your practice?	35.9% Yes	53.1% Yes	0.002

newly insured patients may compromise access to care for those who already have insurance. It is unclear at this time to what extent this will be an issue and how exactly individual practices will be affected. Recent results from Massachusetts Health reform, a state-based precursor to the ACA, offer some basis for optimism, as insurance expansion in Massachusetts was not associated with worsening in access to or quality of outpatient care for the already-insured.^{15,16}

Nearly 80% of the ASSH members who responded to our survey also thought the ACA would decrease reimbursements for hand surgery. The law, in general, creates a concerted effort to control costs and several of its measures – including establishment of an Independent Payment Advisory Board (IPAB), introduction of Accountable Care Organizations (ACOs), and adjustment of disproportionate share hospital (DSH) program – may potentially have a significant impact on compensation rates.^{6,9} The IPAB, for example, is a board of appointed experts who have the authority to adjust reimbursements for physicians to ensure that Medicare expenditures stay within certain limits, while the ACOs are a network of providers who operate on the concept of bundled payments instead of charging fee-for-service.⁹ Some believe these measures may disproportionately affect surgeons compared to other health care providers.⁹

According to the 2010 Physicians Foundation survey, 16% of physicians were planning to retire in the next 3 years and 74% were planning to make significant changes to their practice because of the ACA.¹⁷ In our survey, 37% of respondents thought the ACA would cause them to retire earlier than planned and 51% believed they would have to significantly alter their practice as a result of the law. As such, our survey shows that hand surgeons, similarly to other health care providers, anticipate the ACA having a profound impact on their livelihood.

Among the surveyed ASSH members, academic respondents were less pessimistic about the ACA compared to their private-practice contemporaries. Large academic centers may insulate physicians from some of the changes associated with the health care reform through shared overhead costs, whereas private-practice providers depend more on their own efforts and reimbursements generated per patient. Academic centers also more frequently provide care to underinsured and uninsured patients and may recognize the potential benefit of mandating insurance coverage.¹⁶ Our survey additionally finds that female respondents were less pessimistic about the law compared to their male colleagues. Similar results were obtained in the 2011 Deloitte survey – a survey of all physicians, in general – where 47% of male physicians thought the ACA was a “step in the wrong direction,” compared to 37% of female physicians.¹²

Despite an overall negative outlook on the ACA, respondents to our survey admit to having only cursory knowledge of the law and its contents. Less than 28% reported their understanding of the ACA was good or excellent. This finding is fairly concordant with physicians in general as demonstrated by the 2011 Deloitte survey where only 23% of physicians thought they were “very informed” about the law.¹² The law is complex and exhaustive, and there may be a need for education and advocacy from professional organizations. In our survey, 84% of respondents reported they had not received any training regarding the ACA. Several resources exist that can be helpful for educating hand surgeons regarding the health care changes related to the law. The American College of Surgeons offers a book of articles online on the ACA, discussing how the law will impact all surgeons in terms of payment reform, new systems of care (including the ACOs), and incentive programs.¹⁸ Recently, a primer has been developed specifically for hand surgeons regarding the ACA, focusing on the law’s role in graduate medical education, reimbursements, and tax increases.⁹ Raising awareness about these existing resources and also

developing new education materials is critical to hand surgeons’ preparation for the upcoming changes and may potentially change their attitude toward the ACA.

There are also certain initiatives that hand surgeons can currently undertake as a group to ensure better integration into the law. The ACA supports and promotes the concept of bundled payments and formation of ACOs, under which physicians move away from charging separately for each service (fee-for-service model) to instead receiving a “lump sum” or “up-front” payment for the overall care of patient.^{18–20} To ensure that hand surgery procedures are adequately reimbursed within this model, high-quality data must exist regarding the value and effectiveness of these procedures, something that hand surgeons can actively contribute to.^{9,20} Particular emphasis will have to be placed on identifying treatments that not only address patient’s health concerns, but also reduce hospital length of stay, save health care-related costs, and improve long-term outcomes. Additionally, to be successful in a setting like an ACO, hand surgeons will have to develop new ways to collaborate with other providers within medicine and surgery, consistently reinforcing their own value and importance in the overall network. A strong working relationship with other physicians will be mutually beneficial, as an ACO that offers services of a hand surgeon will have competitive advantage over one that does not. Finally, as the number of insured patients increases under the ACA, there will likely be a need for a larger physician workforce, including hand surgeons. Accordingly, professional society organizations like ASSH might have to play an active role in supporting increased Graduate Medical Education funding for more surgical residents and, ultimately, hand surgery fellows.⁹

In conclusion, our survey shows that hand surgeons largely have a negative outlook on the ACA, while admitting to only cursory knowledge of the law and its contents. With more education and discussion on this legislation, hand surgeons may change their attitude toward the law and, more importantly, be better prepared for the health care reform in order to maximize their productivity, improve their outlook on future job satisfaction, and improve patient care in this shifting environment.

Conflicts of interest

The authors have none to declare.

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