SPECIAL TOPIC

Board Certification in Cosmetic Surgery: An Evaluation of Training Backgrounds and Scope of Practice

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Background: The American Board of Cosmetic Surgery (ABCS) offers a certification process for physicians desiring third-party credentials in aesthetic surgery. This study aims to examine the training backgrounds and scope of practice of ABCS-certified physicians.

Methods: The ABCS online directory was used to identify diplomates. Additional board certifications were identified using the American Board of Medical Specialties physician database. Scope of training was defined using American Council for Graduate Medical Education or Commission on Dental Accreditation requirements for residency training programs. Scope of practice was determined using ABCS physician profiles and professional websites.

Results: Three hundred forty-two ABCS-certified physicians were included in the study. Two-hundred twelve (60.2 percent) also held American Board of Medical Specialties board certifications. Over half (62.6 percent) of ABCS diplomates advertised surgical operations beyond the scope of their American Council for Graduate Medical Education or Commission on Dental Accreditation training. Specialties with the highest prevalence of practicing beyond scope of training were internal medicine [n = 2 (100 percent)], general surgery [n = 69 (95.8 percent)], obstetrics and gynecology [n = 17 (85 percent)], otolaryngology [n = 65 (59.1 percent)], dermatology [n = 16 (51.6 percent)], and oral and maxillofacial surgery [n = 30 (50 percent)]. The most commonly offered out-of-scope procedures were liposuction (59.6 percent), abdominoplasty (50.0 percent), breast augmentation (49.7 percent), and buttock augmentation (36.5 percent).

Conclusions: ABCS–certified physicians include internists and dermatologists, who market themselves as board-certified cosmetic surgeons, and the majority of ABCS members perform complex aesthetic procedures outside the scope of their primary residency training. Patients who rely on ABCS certification when selecting a cosmetic surgeon may not understand the scope of that physician's training experience and qualifications. (*Plast. Reconstr. Surg.* 146: 1017, 2020.)

n 2018, board-certified plastic surgeons performed over 17 million cosmetic procedures, a 160 percent increase from a decade prior.¹ This increased demand for cosmetic surgery has attracted both physician and nonphysician providers to the aesthetic marketplace.² Once primarily

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the domain of board-certified plastic surgeons, aesthetic treatments are now performed by increasing numbers of surgeons (e.g., oral surgeons), nonsurgeon physicians (e.g., dermatologists), and other providers (e.g., physician assistants).^{2–4}

The unregulated growth of the aesthetic marketplace may make it difficult for patients to find a qualified cosmetic surgeon. Misleading marketing and overtly false advertising are widespread in many large markets. One metric commonly used to select a qualified surgeon is board certification.⁵ The American Board of Plastic Surgery (ABPS)

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was established in 1937 with the goal of "promoting safe, ethical, efficacious plastic surgery to the public" and is one of the 24 specialty medical boards recognized by the American Board of Medical Specialties.¹ The goal of American Board of Medical Specialties and its member specialty boards is to protect the public by requiring physicians to obtain and uphold specific training and professional standards. Physicians who meet these standards earn the recognition of being designated as board certified in their field.

In a 2017 study of over 5000 patients, 90 percent of patients preferred a physician who was board-certified to perform cosmetic surgery.⁶ A physician who advertises as "board certified" may therefore increase the likelihood of a patient selecting their practice for cosmetic surgery.

Board certification by the ABPS is a benchmark that requires at least 6 years of surgical training with completion of a plastic surgery residency accredited by the Accreditation Council for Graduate Medical Education. In 2018, graduates of plastic surgery residency programs completed more than 1900 cases during their training, with graduated autonomy through five levels of competency in various domains of surgical practice (e.g., breast surgery, facial aesthetics and reconstruction, body contouring).⁷

After completion of accredited comprehensive plastic surgery training, ABPS certification requires candidates to obtain an active state medical license to take a written qualifying examination. If a candidate passes this comprehensive examination, they must then record and analyze all their surgical cases for 9 months, as part of a rigorous oral board examination.⁸ In addition, as an American Board of Medical Specialties member board, retaining an ABPS board certification requires continuing education and assessment throughout surgeons' careers.⁹ When selecting an aesthetic surgeon, many patients place trust in knowing their surgeon is a board-certified plastic surgeon, and many patients falsely assume all surgeons must be board certified in plastic surgery to perform cosmetic procedures.^{5,6,10,11}

The American Board of Cosmetic Surgery (ABCS) offers an alternative certification process in cosmetic surgery, which does not require the arduous ABPS process detailed above. In contrast to ABPS certification, ABCS certification requires completion of an American Council for Graduate Medical Education or American Osteopathic Association residency program in a "related" surgical specialty, such as general surgery, obstetrics and gynecology, or maxillofacial surgery, followed by 1 year of fellowship training by an ABCS cosmetic surgeon, during which 300 cosmetic procedures must be performed.¹² After completion of both oral and written board examinations administered by the ABCS over a single weekend, board certification in cosmetic surgery is granted.¹³ Although ABCS certification is not recognized by the American Board of Medical Specialties, physicians who complete ABCS training market themselves as board-certified cosmetic surgeons, potentially misleading patients as to their qualifications and operative experience, especially if a patient assumes that the certification is equal to that of the American Board of Plastic Surgery.¹⁴ The purpose of this study was to examine the training backgrounds and advertised scope of practice of the ABCS diplomates using a nationwide sample.

METHODS

Data Collection

A list of current ABCS diplomates practicing in the United States was obtained from the ABCS directory.¹⁵ The American Board of Medical Specialties certification database was used to determine American Board of Medical Specialties certification for each ABCS diplomate.¹⁶ Discrepancies between physicians with similar names were resolved by crossreferencing geographic location. Additional data, including non-American Council for Graduate Medical Education training specialties and procedures performed by each physician, were collected from ABCS profiles and professional websites. Professional websites were located by means of Internet searches using the physician's name; geographic location; and the search terms "cosmetic," "aesthetic," "surgery," and "surgeon." In cases for which current websites and ABCS profiles were unavailable, the physician was excluded from analysis.

Defining Scope of Training and Competency

The scope of training was defined using the Accreditation Council for Graduate Medical Education minimum procedural competencies for each respective training specialty of physicians recognized by the ABCS (Table 1).^{17–21} Scope of training for oral and maxillofacial surgeons was determined using the Commission on Dental Accreditation Standards for Advanced Specialty Education Programs in Oral and Maxillofacial Surgery.²² Physicians performing procedures outside of their American Council for Graduate Medical Education core procedural competencies were defined as practicing out of their residency training scope.

Procedures Considered Out-of-Scope
Aesthetic surgery below the neck (e.g., breast augmentation, abdominal liposuction, abdominoplasty, buttock augmentation)
Aesthetic surgery outside of the periorbital region (e.g., rhinoplasty, full face lift, neck lift)
Any aesthetic surgery
Any aesthetic surgery
Surgical procedures not including Mohs surgery or skin lesion excisions
Any aesthetic surgery below the neck
Any surgical procedure

 Table 1. Definition of Out-of-Scope as Defined by American Council for Graduate Medical Education Procedural

 Competencies

OMFS, oral and maxillofacial surgery.

Statistical Analysis

Results were characterized with descriptive statistics. Data were divided by American Council for Graduate Medical Education training specialty for subgroup analysis. Procedures performed by each specialty are described with descriptive statistics.

RESULTS

A total of 342 ABCS diplomates were included in the study. Two-hundred twelve of these diplomates (60.2 percent) had board certifications recognized by the American Board of Medical Specialties (Fig. 1). Of those who were American Board of Medical Specialties certified, the most frequent certifications were otolaryngology [n = 83 (39 percent)], general surgery [n = 39 (18 percent)], ophthalmology [n = 31 (15 percent)], and dermatology [n = 29 (14 percent)]. Board certifications in obstetrics and gynecology (n = 17) and internal medicine (n = 2) were less frequent (Fig. 1).

The most commonly reported specialty among the non-American Board of Medical Specialtiescertified diplomates was oral and maxillofacial surgery (n = 60), followed by general surgery (n = 33), otolaryngology (n = 27), ophthalmology (n = 4), obstetrics/gynecology (n = 3), dermatology

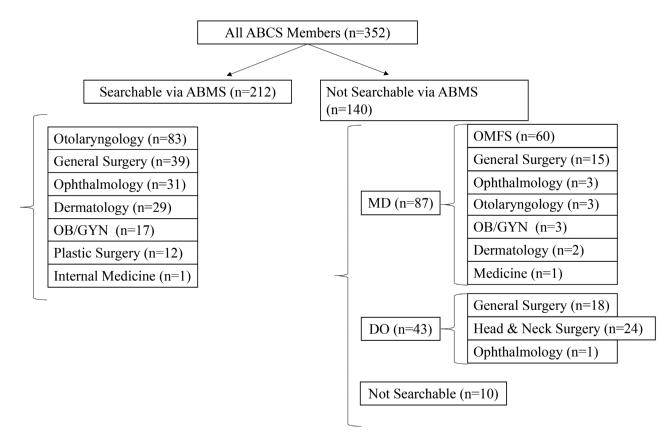


Fig. 1. Search results of American Board of Cosmetic Surgery (*ABCS*) diplomates with stratification by board certification by the American Board of Medical Specialties (*ABMS*). *OMFS*, oral and maxillofacial surgery; *OB/GYN*, obstetrics and gynecology.

(n = 1), and internal medicine (n = 2). We found that 20.7 percent of these physicians reported primary board certification by an American Board of Medical Specialties member board, yet they were not certified according to the American Board of Medical Specialties database.

Nearly two-thirds (62.6 percent) of all ABCS diplomates perform surgical operations out of the scope of their American Council for Graduate Medical Education or Commission on Dental Accreditation training. When analyzed by physician specialty, those performing out-of-scope surgical procedures most frequently were internists [n = 2 (100 percent)], general surgeons [n = 69 (95.8 percent)], obstetricians [n = 17 (85 percent)], otolaryngologists [n = 65 (59.1 percent)], dermatologists [n = 16 (51.6 percent)], and oral and maxillofacial surgeons [n = 30 (50 percent)].

The most commonly offered out-of-scope surgical procedure was liposuction (59.6 percent), followed by abdominoplasty (50.0 percent), breast augmentation (49.7 percent), and buttock augmentation (36.5 percent) (Table 2). Labiaplasty (13.5 percent) and rhinoplasty (11.1 percent) were the least commonly offered out-ofscope procedures.

DISCUSSION

The ABCS offers a board-certification process in cosmetic surgery based on 1 year of cosmetic training. Our results indicate that 62 percent of ABCS diplomates offer to perform surgical operations outside the scope of their residency training. These trends are corroborated by similar published reports demonstrating both national and international difficulty regulating the field of cosmetic surgery.^{2,23–25} Ubiquitous, unregulated, and enticing Web and social media marketing has blurred the lines between traditionally trained cosmetic surgeons, who have completed an American Council for Graduate Medical Educationapproved plastic surgery residency, and those who completed an unrelated residency (e.g., obstetrics and gynecology) followed by 1 year of cosmetic surgery training in mostly private practice-based, unaccredited fellowships.^{2,25} Although additional training in aesthetic surgery qualifies some surgeons to perform limited cosmetic procedures anatomically related to their primary training (e.g., otolaryngologist performing a face lift), patient safety is surely compromised in cases where surgeons are performing operations far beyond the scope of their residency training (e.g., otolaryngologists performing procedures below

Table 2. Procedures Outside the Scope of Training	s Outside the Scop	-	Offered by ABCS Diplomates	omates				
Specialty	Abdominoplasty (%)	Blepharoplasty (%)	Breast Augmentation (%)	Buttock Augmentation (%)	Labiaplasty $(\%)$	Liposuction (%)	Rhinoplasty (%)	Rhytidectomy (%)
Otolaryngology	55 (50.0)	n/a	59 (53.6)	40 (36.4)	6 (5.5)	63 (57.3)	n/a	n/a
Ophthalmology	4(11.4)	n/a	4(11.4)	4(11.4)	1(2.9)	11(31.4)	6(17.1)	15(42.9)
Obstetrics/gynecology	' 15 (75.0)	6(30.0)	17(85.0)	14(70.0)	11(55.0)	16(80.0)	6(30.0)	9(45.0)
Dermatology	3(9.7)	12(38.7)	4(12.9)	3(9.7)	2(6.5)	14(45.2)	1(3.2)	11(35.5)
General surgery	(94.4)	43(59.7)	62(86.1)	50(69.4)	23(31.9)	_	24(33.3)	54(75.0)
Internal medicine	1(50.0)	1(50.0)	1(50.0)	1(50.0)	n/a	2(100.0)	1(50.0)	2(100.0)
OMFS	25(41.7)	n/a	23(38.3)	13(21.7)	3(5.0)	29(48.4)	n/a	n/a
Total	171(50)	62(18.1)	170(49.7)	125(36.5)	46(13.5)	204(59.6)	38 (11.1)	91(26.6)
n/a. not applicable: OMFS, oral and maxillofacial surgery.	FS. oral and maxillofac	ial surgery.						

the neck, or obstetricians or dermatologists performing rhytidectomy).

ABCS diplomates who are operating the furthest outside their scope of training are internal medicine physicians, dermatologists, and oral surgeons. American Council for Graduate Medical Education and Commission on Dental Accreditation requirements for these specialties include either no required surgical experience, or for oral surgeons, no aesthetic or reconstructive cases below the neck (e.g., liposuction, abdominoplasty, breast augmentation, labiaplasty, and buttock augmentation).^{19,22} These are surgical procedures that carry significant risk of injury if not performed properly. A recent study of board-certified plastic surgeons performing buttock augmentation found a mortality rate as high as one in 2351-the highest rate of death for any cosmetic procedure.²⁶ This occurred despite these surgeons having extensive residency training in cosmetic surgery. Despite high mortality rates, ABCS diplomates without any residency training in cosmetic surgery still offer this procedure.

Current literature, media reports, and legal proceedings demonstrate that physicians operating outside their scope of training jeopardize patient safety. This has been exemplified by highprofile cases of surgical complications and deaths, such as when an ABCS-certified Washington oral surgeon was sued for malpractice after performing a breast reduction and liposuction on a 15-year-old girl. He also faced fines for a different patient who died during a cosmetic procedure.²⁷ In Oregon, an internal medicine physician faced criminal charges after a patient died during an inoffice abdominoplasty.²⁸ Current literature indicates that physicians who are not trained in plastic surgery have increased complication rates compared to plastic surgeons when performing some cosmetic procedures.²⁹ This suggests that a higher standard of training and greater regulation of marketing should be required for the practice of cosmetic surgery.

Recognizing the inherent dangers of not regulating who can advertise as board certified, the Medical Board of California prohibits physicians from advertising as board certified unless they are certified by an American Board of Medical Specialties board or another board deemed equivalent in its training and certification requirements.³⁰ On December 18, 2018, the Medical Board of California unanimously voted that the ABCS did not meet these requirements. In addition, 21 percent of ABCS members had been subjected to disciplinary actions by the Medical Board of California, compared with just 3.7 percent of California Society of Plastic Surgeons members. Frighteningly, several of the California ABCS fellowship directors have been disciplined by the Medical Board. Accordingly, ABCS members are no longer able to advertise as board certified in the state of California.³¹ Despite objections from physicians about the burdens of American Board of Medical Specialties certification,³² California has set a precedent that the ABCS does not provide certification equivalent to American Board of Medical Specialties member boards, and steps should be taken to prevent patients from being misled as to their physician's qualifications.

Proponents of ABCS certification contend that the 300 aesthetic procedures during a fellowship is adequate. However, 300 surgical cases pales in comparison to that of plastic surgeons, who perform a mean of 1947 (range, 1272 to 3318) procedures during residency training.⁷ Undoubtedly, American Council for Graduate Medical Education–accredited plastic surgery residency training is more robust than a 1-year fellowship, and patients can be confident that a board-certified plastic surgeon has the training to perform cosmetic surgery safely.

This study has several limitations. First, advertised scope of practice was based on procedures offered on the professional websites of ABCS diplomates. We are unable to confirm whether patients are booking and undergoing these procedures with ABCS surgeons. Nevertheless, these surgeons are offering to perform these procedures. In addition, the ABCS does not publish complication rates of procedures performed by their diplomates; therefore, we are unable to quantify outcomes related to operating outside scope of residency training. Furthermore, the 62 percent of physicians that held American Board of Medical Specialties board certifications did not include those with self-proclaimed American Osteopathic Association board certifications. Unfortunately, American Osteopathic Association board certification information is not publicly available, and requires funding to obtain. This will be a future direction of research and we wish to apply for grant funding from the Plastic Surgery Foundation to help make this a possibility. Additional future study comparing the complication rates of ABPS-certified and ABCScertified surgeons would provide valuable insight to patients and legislators, and guide future decision-making in the regulation of the cosmetic surgery market.

CONCLUSIONS

The ABCS provides board certification primarily for non-plastic surgeon physicians seeking aesthetic credentialing. Our review of ABCS diplomate training backgrounds revealed that nearly 10 percent of ABCS members were not even trained in a surgical discipline, and another two-thirds of diplomates advertise aesthetic operations beyond the scope of their residency training. Our findings support previous conclusions reached by the Medical Board of California that ABCS certification is not equivalent to ABPS board certification. ABCS members using the term board-certified may make it difficult for a patient to discern a surgeon's qualifications to perform cosmetic surgery, and may consider ABCS and ABPS certification to be equivalent. Increased efforts are needed to regulate the use of the term board-certified and to increase patient education to empower patients to make informed decisions when selecting a qualified cosmetic surgeon.

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