

Are We Teaching Evidence-Based and Inclusive Practices in Gender-Affirming Care? Perspectives From Plastic Surgery In-Service Examinations

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ABSTRACT

Background Resident physicians take annual in-service examinations (ISEs) as part of continuing medical education, which set educational priorities, allow for formative feedback, and guide preparation for final board examinations. Gender-affirming care is provided in many specialties but has been an underrepresented area in medical education. Plastic surgeons provide a large portion of gender-affirming surgical care. Educational gaps in standardized ISEs may contribute to ongoing health care disparities for transgender and gender diverse people.

Objective To evaluate the quality of content pertaining to gender-affirming surgery (GAS) on plastic surgery ISEs.

Methods Plastic surgery ISEs from years 2012 to 2020 were accessed online through the American Council of Academic Plastic Surgeons website in June 2022. All 5 gender diverse authors analyzed examinations for the presence of GAS questions; identified questions were analyzed for quantity, organization based on content category, affirming language, and accuracy against current guidelines.

Results Of 1959 ISE questions available for review, 11 GAS questions were identified for a total frequency of 0.56%. Most GAS questions (6 of 11, 55%) were miscategorized. Inappropriate language, including misgendering of patients, occurred in 7 of 11 (64%) questions. No questions discussed GAS beyond chest or genital surgery, or common variations of these procedures. Transgender identities were represented as only binary, with no mention of nonbinary or gender-fluid individuals.

Conclusions Our study illustrates that there are significant gaps in educational content pertaining to gender-affirming care on plastic surgery ISEs.

Introduction

Residents take yearly in-service examinations (ISEs) to assess knowledge in their field of practice. While ISEs are not required for board eligibility, they serve to guide residency curriculum in preparation for final board certification and in shaping formative feedback. ISEs evaluate acumen of established, evidence-based clinical practice guidelines, as well as set expectations for core competencies for residents in training.¹ Plastic surgeons provide a large portion of gender-affirming surgery (GAS).^{2,3} Thus, representation of GAS in plastic surgery ISEs is crucial to comprehensive resident education. Residents rely significantly on past ISEs as resources for board preparation, highlighting the importance of ISE content as it applies to didactic review.

In 2014 the Medicare Appeals Board lifted exclusions on gender-affirming care, with subsequent increases in the number of transgender and gender diverse individuals pursuing affirming health care across all specialties.⁴⁻⁸

In response, the American Society of Plastic Surgeons Resident Education Center has offered transgender educational modules since 2016 in efforts toward addressing gaps in gender-affirming care knowledge for plastic surgery residents.⁵ However, GAS-related content in standardized examinations has not been evaluated. The objective of this study is to evaluate whether plastic surgery ISEs reflect appropriate content pertaining to GAS.

Gender-affirming care is integral across multiple specialties, and the rapid increase of GAS procedures in plastic surgery is a good model to assess whether there has been an equal rise in the representation of educational gender-affirming health care content. If representation of gender-affirming care is lacking in plastic surgery, it may also be lacking in other areas of graduate medical education, prompting institutional review.

Methods

Plastic surgery ISEs from years 2012 to 2020 were accessed online through the American Council of

Academic Plastic Surgeons website in June 2022. This time frame was chosen because GAS-related questions first appeared in ISEs in 2012. Questions are organized based on content categories (eg, craniofacial, hand), with 48 total content categories. Questions were analyzed for the presence of GAS by all 5 gender diverse authors, and identified questions were analyzed for utilization of appropriate language and adherence to clinical practice guidelines and confirmed by the senior author, who is a fellowship-trained and recognized expert in gender-affirming care. There were no conflicts or disagreements between authors regarding question assessments. Questions were reviewed for the following characteristics: delegation to appropriate content categories (eg, genital surgery-related questions appear under the genitourinary reconstruction content category, craniofacial-related questions appear under the craniofacial content category, etc), affirming language (eg, pronoun usage), and adherence to World Professional Association for Transgender Health (WPATH) Standards of Care (SOC) Version 7 (2012). Questions were independently reviewed by each author with an intersectional lens, and language was deemed as appropriate or inappropriate based on established literature on inclusive language in gender-affirming health care settings and author personal lived experience.^{9,10} This study was exempt from institutional review board assessment, as it was an analysis of public information.

Results

From 2012 to 2020, 1959 questions were available for review. Of 1959 questions, 11 GAS questions were identified for a frequency of 0.56%. GAS-related questions were found in 3 content categories: chest wall/abdominal wall (2 of 98 total questions), coding (1 of 25 total questions), and genitourinary reconstruction (8 of 15 total questions). Questions included topics in chest and genital reconstruction, WPATH guidelines, and adolescent surgical management. A breakdown of questions is reported in the TABLE. Most questions (6 of 11, 55%) were miscategorized, and inappropriate language, including misgendering, occurred in 7 of 11 (64%) questions. No questions discussed GAS beyond chest or genital surgery. Transgender identities were represented as only binary, with no mention of nonbinary or gender-fluid identities. Surgical questions covered only binary or traditional surgical procedures. Three questions referenced WPATH SOC Version 7 (2012); a 2019 question named a correct answer as one that did not align with these guidelines.¹¹

Discussion

This is the first analysis of ISE questions pertaining to gender-affirming care. While this study focuses on plastic surgery, findings suggest that there are significant gaps in gender-affirming care related educational content included on the ISE, which may ultimately reflect broader gaps throughout graduate medical education.

In addressing quantity of GAS-related questions, the journal *Plastic and Reconstructive Surgery* has added a dedicated section on GAS to recognize the expanding role of plastic surgery in gender-affirming care. For perspective, other categories such as craniofacial and aesthetic surgery represent 12% and 26%, respectively, and although craniofacial and aesthetic surgery are common in general practice, GAS procedures like mastectomy are increasingly common in general plastic surgery practice.^{12,13} Procedures like pediatric craniofacial surgery are performed at specialized centers, not in general practice. Despite this, these sections have significantly more representation on the ISE when compared to GAS (0.56%).

Upon analyzing questions, errors were found in multiple categories: utilization of inappropriate language (eg, misgendering, “transsexualism”), nonadherence to WPATH guidelines, and usage of gendered anatomy. Language is important, as misgendering can have major effects on mental health.^{14,15} Seeing outdated, noninclusive language on ISEs can subtly send the message that care with language is not important. Residents must see examples of and learn terminology demonstrating that gender identity is internal, is not binary, and is not necessarily linked to anatomy or surgical outcomes.

All questions portrayed only binary identities (transgender man or transgender woman) and only binary surgical options. The incidence of nonbinary and gender-fluid individuals requesting GAS is increasing, and knowledge of surgical options and standards of care are essential in treating this population.^{16,17} Based on the 2015 US Transgender Survey, 54% of respondents identify as gender nonconforming or gender-queer.¹⁸ WPATH SOC Version 8 (2022) includes guidelines on care of nonbinary and gender-fluid individuals, so representation of this population in educational content is crucial, and content lacking this reinforces the binary expectation among clinicians.¹⁹

To our knowledge, this is the first analysis of graduate medical education content pertaining to gender-affirming care, and no other studies exist outside of plastic surgery to compare our findings. Multiple studies across multiple specialties exist in denoting the importance of provider education on this topic, but without analysis of objective educational

TABLE

Breakdown of Gender-Affirming Surgery Questions on Plastic Surgery In-Service Examinations From Years 2012 to 2020

Year	No. of GAS Questions	ACAPS Category	True Category	Appropriate Language	Inappropriate Language
2012	1	Chest/abdominal wall	General transgender health	N/A	Misgendering Reassignment surgery "Real-life test" Gender identity disorder Transsexualism
2013	1	Chest/abdominal wall	Genitourinary reconstruction	N/A	Misgendering Gendered anatomy
2016	2	Genitourinary reconstruction ^a	Genitourinary reconstruction	N/A	Misgendering Reassignment surgery
		Genitourinary reconstruction	Genitourinary reconstruction	N/A	Misgendering Reassignment surgery
2017	1	Genitourinary reconstruction	Chest/abdominal wall	"Patient" Gender dysphoria	"Born as female, identifies as male" Binary/traditional options
2019	4	Genitourinary reconstruction	Genitourinary reconstruction; WPATH	"Patient" Confirmation surgery	N/A
		Genitourinary reconstruction	Genitourinary reconstruction	"Patient" Confirmation surgery	Binary/traditional options
		Genitourinary reconstruction	Chest/abdominal wall; WPATH	Transmasculine Confirmation surgery Adolescent transgender patient	N/A
		Coding	Coding	Transfeminine Gender dysphoria	N/A
2020	2	Genitourinary reconstruction	Chest/abdominal wall; WPATH	"Individual" Chest masculinization Gender dysphoria	N/A
		Genitourinary reconstruction	Chest/abdominal wall	N/A	"Affirmed male (birth assigned female)" Gendered anatomy

^a Item was not scored as part of the examination that year.

Abbreviations: GAS, gender-affirming surgery; ACAPS, American Council of Academic Plastic Surgeons; N/A, not available; WPATH, World Professional Association of Transgender Health.

content.²⁰⁻²³ However, all of these studies suggest a lack of didactic and clinical experiences in gender-affirming health care across involved specialties.

Our study was limited by the fact that recent ISEs from years 2021 and 2022 are not currently available for review. Additionally, ISEs may be outdated with respect to recent guidelines, as it takes significant time for consensus guideline changes to appear on new examinations. Notably, language is always evolving around societal and medical topics, and old question banks will unlikely ever mirror modern approaches.

Ultimately, there is a need for increased quality of GAS-related questions on plastic surgery ISEs, including appropriate language use, nontraditional surgical options, adherence to established consensus guidelines,

and representation of gender diverse identities. We recommend appropriate question categorization through creation of a dedicated 49th content category for GAS. In applying these findings to plastic surgery and broadly to all specialties, educational content pertaining to gender-affirming care should be assessed to ensure appropriate quantity, inclusive language, and adherence to established consensus guidelines.

Conclusions

This study illustrates that there are significant gaps in educational content relating to gender-affirming care on the plastic surgery ISE as it pertains to language and adherence to established consensus guidelines.

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