

Review of the Intercollegiate Surgical Curriculum Programme for oral and maxillofacial surgery aesthetics: are we underselling ourselves?

D.H. Awal*, T.W.M. Walker, C. Mills

Department of Dental and Maxillofacial Surgery, Great Ormond Street Hospital for Children, Great Ormond Street, London, WC1N 3JH

Accepted 5 August 2019

Available online 23 August 2019

Abstract

Aesthetic facial surgery is considered to be within the remit of the maxillofacial surgeon but this is not reflected currently in the trainees' curriculum. In contrast, the plastic surgery curriculum demands detailed training in facial aesthetics. In this paper we have compared the UK OMFS, plastics, and otolaryngology curricula, and used the feedback of trainees to suggest a new aesthetics curriculum. Our method was based on the first three steps of Kern's 1998 six-step model of curricula development: identification of problems, assessment of need, and goals or objectives. The cosmetic certification criterion of the Royal College of Surgeons was used as a baseline for comparison. There was huge variation in the detail and specification of the three specialties' curricula: plastics covered 11/11 of the assessed procedures, while OMFS and otolaryngology covered 7/11 and 4/11, respectively. A total of 45 trainees provided feedback and there was an overall consensus that more training in aesthetics would be beneficial, though accessibility to resources would be an issue. With input from the BAOMS aesthetics lead, our ambitious curriculum increases the number of logbooks to reflect our expertise in the head and neck. It also broadens the span of training over all years of specialist training and, most importantly, relaxes the criteria for transferrable skills. Embracing aesthetics as part of the core curriculum will be beneficial for the future of OMFS, and will produce more rounded surgeons at the end of training. Even the most optimistic observers cannot ignore the financial and logistical setbacks that will have to be faced to achieve this, but we hope that this paper will stimulate a discussion.

© 2019 Published by Elsevier Ltd on behalf of The British Association of Oral and Maxillofacial Surgeons.

Keywords: Aesthetic; Curriculum; Training; Oral and Maxillofacial

Introduction

Aesthetic facial surgery is considered to be within the remit of the maxillofacial surgeon and is a distinct subspecialty of oral and maxillofacial surgery (OMFS).¹ The current OMFS intercollegiate surgical curriculum programme (ISCP) considers that aesthetic surgery is relevant only to the final stages of training (ST 6–7).² While there is scope for further devel-

opment through fellowships and training interface groups,³ availability is often scarce.

In contrast, the plastic surgery curriculum includes training in facial aesthetics from ST3 onwards.⁴ From an early stage it incorporates modules on rhytidectomy and non-surgical rejuvenation, something that is omitted completely from the OMFS syllabus.² Given the overall growth in aesthetics over the past decades,⁵ our extensive and specific training in head and neck surgery, and changing public and professional perceptions that cosmetic surgery is no longer only for plastics,³ should we not adapt our curriculum accordingly?

* Corresponding author. Permanent address: 51-53 Leroy Street, Flat 3, London, SE14 4SR. Tel.: (+44) 07841561418.

E-mail address: danyal.awal@nhs.net (D.H. Awal).

Key

	Plastics	OMFS	ENT
L1			
L2			
L3			

	Stage of specialist surgical training					
	ST3	ST4	ST5	ST6	ST7	ST8 / TIG
Fat transfer	L3					
				L1		
Blepharoplasty ¹	L3					
				L1		
Cosmetic bone grafting					L1	
Brow lift	L2					
				L1		
Rhytidectomy ¹	L3					
				L1		L1
Facial contouring	L2					
Genioplasty					L1	
	L3					
Midface lift					L2	
Non-surgical rejuvenation ²	L3					
Otoplasty	L3					
				L1		L1
Platysmaplasty					L2	
Rhinoplasty ¹	L3					
				L2		
	L3					

Fig. 1. A map of the OMFS, plastics and otolaryngology Intercollegiate Surgical Curriculum Programme (ISCP) facial aesthetics curricula. Level 1 (L1) was regarded as a *brief/Single-word, non-specific description of the topic with no reference to the competency*, whereas Level 3 (L3) provided a *comprehensive and precise description with explicit reference to competency throughout*. Level 2 (L2) was *everything that failed to meet these descriptions*.

Table 1

Suggested version of a new Intercollegiate Surgical Curriculum Programme (ISCP) for aesthetic surgery.

Procedures	ST3-5	ST6-7	Mandatory	Transferable skills
Core:				
Blepharoplasty ¹	10	10	5 upper, 5 lower	Orbital access (maximum 5)
Rhytidectomy ¹	10	15	3 midface, 3 platysmaplasties	Parotidectomy, open condyle fracture, TMJ arthroplasty/replacement (maximum 10)
Rhinoplasty ¹	10	15	10 open, 3 with grafting/implants	Repair of nasal or naso-orbitoethmoidal fractures, functional septal surgery, cleft rhinoplasty (maximum 10)
Other:				
Alloplastic facial augmentation	5	15	5 malar, 5 orbital rim implants	As part of any other procedure (maximum 10)
Bone grafting of the facial skeleton	5	15		Major autogenous facial reconstruction, alveolar bone grafting, costochondral grafting (maximum 10)
Brow lift	5	5	5 open, 3 endoscopic procedures	
Facial contouring and remodelling	10	15	3 foreheadplasty, 3 mandibular	Coronal flap, major facial reconstruction, major cancer resection, cranioplasty, major craniofacial surgery, orthognathic surgery (maximum 10)
Genioplasty	5	15	5 advancement, 5 reduction	Orthognathic surgery with genioplasty (maximum 5)
Facial liposuction and free-fat transfer	5	15		As part of any other procedure (maximum 10)
Non-surgical rejuvenation	10	20	15 paralytic, 5 fillers	As part of any other procedure (maximum 10)
Otoplasty	3	5	3 with grafting/implants	
Total	78	145		80

¹ Core procedures that require mandatory achievement of the numbers shown.

The aim of this paper was to compare the ISCP curricula for OMFS, plastics, and otolaryngology⁶ in the UK, and to use the feedback of trainees to suggest a new aesthetics curriculum.

Methods

Our method was based on the first three steps of the six-step model of curriculum development by Kern et al:⁷

Problem identification

We used the certification checklist of the Royal College of Surgeons (RCS)⁸ for cosmetic surgery to compile a list of relevant aesthetic facial procedures, and assessed the ISCP curricula for their inclusion in OMFS, plastics, and otolaryngology to create a curriculum map. The quality of a curriculum's description of the procedure was graded subjectively.

Needs assessment

Using the popular website SurveyMonkey⁹ we created a questionnaire that was dispersed among trainees through the BAOMS Junior Trainee Group (JTG) on Facebook.¹⁰

Goals and objectives

We have suggested a new OMFS aesthetics curriculum based on stages 1 And 2. Stages 4 (educational strategy), 5 (implementation) and 6 (evaluation/feedback) would be relevant if the curriculum was piloted.

Results

Fig. 1, is a summary of the aesthetics curriculum maps for OMFS, plastics, and otolaryngology.

A total of 45 trainees responded including 15 OMFS specialist registrars (SpR) 13 dual-qualified trainees, 16 second-degree students and 1 singly-qualified student. The key findings were that 36 agreed or strongly agreed that UK OMFS aesthetics training is insufficient, and while 31 thought that the programme should be amended, 21 thought that access to NHS resources was scarce or non-existent in their deanery. Interestingly, 32 trainees were willing to engage in voluntary or unpaid training in aesthetic surgery in either the NHS or private sector.

Discussion

We know of no similar reported studies apart from an abstract by Walker et al,¹¹ which concluded that OMFS needs to adopt facial aesthetic practice without delay.

The curriculum map (Fig. 1) shows that trainees in plastic surgery are exposed to facial aesthetics at an early stage, and all core RCS cosmetic certification procedures⁸ (rhytidectomy, rhinoplasty, and blepharoplasty) are mapped in detail from ST3 onwards. There are distinct aesthetics syllabuses for both the intermediate (ST3-6) and advanced (ST7-8) stages of training with detailed and specific reference to objectives, knowledge, and clinical and technical competencies. Options for post-CCT (Certificate of Completion of Training) fellowships and training interface groups are similar to those in OMFS. Despite this, there is the notion that in plastics in the UK, training in facial aesthetics is

insufficient,¹² and training outside deanery programmes is encouraged. This issue about competency seems to cause concern internationally.^{13–15}

In contrast, OMFS considers aesthetics to be an area of specialist interest despite the omission of several key RCS certifications.⁸ Other areas of specialist interest (cleft, craniofacial, oncology), however, have defined periods of training. In OMFS, the Joint Committee on Surgical Training logbooks for aesthetics¹⁶ are accordingly underwhelming, as they cite experience rather than competence, and fail to mention transferable skills.

As expected, detailed training in genioplasty is expected from an early stage because of its relevance to orthognathic surgery. There is an argument for orthognathics to be incorporated into the RCS certification criteria for cosmetic surgery,⁸ as postoperative satisfaction with aesthetics is well documented.^{17,18}

The plastics curriculum dedicates an entire module to non-surgical rejuvenation, and this is increasingly common among all healthcare providers,⁵ including dentists.¹⁹ While it is not a requirement for RCS certification in cosmetic surgery, its inclusion in our curriculum could be valuable because of its ubiquitous nature and the likelihood that OMFS might be expected to manage botched procedures.

The trainees' feedback indicated a willingness to increase the exposure to aesthetics, which could allow them to be better prepared for the aesthetic component of the FRCS examination - an area of weakness for many candidates. While the overall duration of OMFS training is considered similar to that of other surgical specialties,²⁰ our training finishes at ST7 compared with ST8 for plastics and otolaryngology. This additional year could theoretically be used to incorporate mandatory training in aesthetics within the curriculum, but a lengthening of the already long training pathway might risk more trainees being deterred from the specialty, not to mention the issues with resources.

The reduced intensity of training that is related to the European Working Time Directive (EWTd) has had a well-documented impact on surgical training.^{21,22} If the EWTd is rescinded after Brexit, it may be a good opportunity to incorporate aesthetics, but burnout syndrome is already rife among doctors,²³ and again, there are issues with resources.

Feedback has indicated variation in the perceived access to aesthetics resources and this is an issue for countries with fully privatised healthcare, such as the United States.²⁴ US systems have found ways to increase exposure for trainees through resident-led "cosmetic clinics",²⁵ but this is not feasible in the current NHS climate. While most trainees were willing to engage in unpaid or voluntary training, the justification for a curriculum that cannot be delivered through NHS funding would be precarious, and would lead to inequalities in training. Additionally, the arrangement for trainees to be mandatorily paid at an NHS rate for this additional work would be fraught with logistical and political problems.

Finally, there is the issue of how to define transferrable skills. Almost every subspecialty of OMFS incorporates elements of aesthetics, and increasing the numbers in logbooks, together with the amount of transferrable skills that can contribute, is a reasonable way forward.

Our suggested curriculum is shown in [Table 1](#).

A limitation of this study was the failure of the ISCP curricula^{2,4,6} to specify exactly when training in a procedure should be undertaken. This meant that procedures were mapped over an extended period as opposed to a single year, which may seem deceptively extensive. The grades given for the quality of the curricula were subjective, though the involvement of multiple clinicians minimised any discrepancies. Finally, our reliance on the "JTG of BAOMS" Facebook group as the point of contact with trainees, which was intended to minimise selection bias, may have excluded non-members from taking part.

In conclusion, the inclusion of aesthetic surgery in the core curriculum would be beneficial for the future of OMFS and is in line with the views of many trainees. Aesthetics is relevant to most other OMFS subspecialties, and specific training will produce more rounded surgeons. Even the most optimistic observers cannot ignore the financial and logistical setbacks needed to achieve this in a strained NHS, but we hope this paper will stimulate a discussion.

Conflict of interest

We have no conflicts of interest.

Ethics statement/confirmation of patients' permission

Not applicable.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Acknowledgements

We would like to thank the 45 trainees that provided feedback.

References

1. Oral and Maxillofacial surgery — Royal College of Surgeons. Available from URL: <https://www.rcseng.ac.uk/careers-in-surgery/trainees/foundation-and-core-trainees/surgical-specialties/oral-and-maxillofacial-surgery/> (last accessed 31 July 2019).
2. Intercollegiate Surgical Curriculum Programme. Educating the surgeons of the future: oral and maxillofacial surgery. Available from URL: https://www.gmc-uk.org/-/media/documents/OMFS_inc...Trauma_TIG.pdf.72601045.pdf (last accessed 31 July 2019).

3. Joint Committee on Surgical Training (JCST). Training interface groups. Available from URL: <https://www.jcst.org/training-interface-groups/> (last accessed 31 July 2019).
4. Intercollegiate Surgical Curriculum Programme. Educating surgeons of the future: plastic surgery. Available from URL: https://www.gmc-uk.org/-/media/documents/Plastic_Surgery_Updated_2016.pdf_68164024.pdf (last accessed 31 July 2019).
5. Cosmetic surgery stats: dad bods and filter jobs. *Cyberpsychology. Behav Soc Netw* 2017;**15**:91–8. Available from URL: https://baaps.org.uk/about/news/1535/cosmetic_surgery_stats_dad_bods_and_filter_jobs (last accessed 1 August 2019).
6. Intercollegiate Surgical Curriculum. Educating the surgeons of the future: otolaryngology. Available from URL: https://www.gmc-uk.org/-/media/documents/Otolaryngology_MASTER.pdf_64919816.pdf (last accessed 31 July 2019).
7. Kern DE, Thomas PA, Hughes MT, Chen BY, editors. *Curriculum development for medical education: a six-step approach*. 3rd ed. Johns Hopkins University Press; 2015. p. 300.
8. Cosmetic surgery certification — Royal College of Surgeons. Available from URL: https://www.rcseng.ac.uk/standards-and-research/standards-and-guidance/service-standards/cosmetic-surgery/certification/?gclid=CjwKCAjw-ITqBRB7EiwAZ1c5UyTwwJAA2KWZ6VLHTmdziMgann_AaGXV9iP01nt7FM5fjKWEEx3Qn3xoCgTkQAvD.BwE (last accessed 31 July 2019).
9. SurveyMonkey: The world's most popular free online survey tool. Available from URL: <https://www.surveymonkey.com/> (last accessed 31 July 2019).
10. JTG of BAOMS. Available from URL: <https://www.facebook.com/groups/jtg.baoms/> (last accessed 31 July 2019).
11. Walker T, Kerai A, Stagnell S, et al. Oral & maxillofacial surgery has been left in the dark: curriculum mapping of Health Education England's Non-Surgical Facial Aesthetic Curriculum 2016 and the ISCP curricula for otolaryngology, plastic surgery and oral & maxillofacial surgery. *Br J Oral Maxillofac Surg* 2016;**54**:e175–6. Available from URL: [https://www.bjoms.com/article/S0266-4356\(16\)30648-9/abstract](https://www.bjoms.com/article/S0266-4356(16)30648-9/abstract) (last accessed 1 August 2019).
12. Pantelides NM, Highton L, Lamb A, et al. An analysis of the cosmetic surgery experience acquired through UK plastic surgery training. *J Plast Reconstr Aesthet Surg* 2018;**7**:1532–8.
13. Sharma RK. Changing trends in plastic surgery training. *Indian J Plast Surg* 2014;**47**:162–6.
14. Buckley CE, Dolan RT, Morrison CM, et al. Aesthetic surgery training in a changing healthcare environment. *J Plast Reconstr Aesthet Surg* 2017;**70**:e11–3.
15. Hashem AM, Waltzman JT, D'Souza GF, et al. Resident and program director perceptions of aesthetic training in plastic surgery residency: an update. *Aesthet Surg J* 2017;**37**:837–46.
16. Certification guidelines and checklists - Joint Committee on Surgical Training (JCST). Available from URL: <https://www.jcst.org/quality-assurance/certification-guidelines-and-checklists/> (last accessed 1 August 2019).
17. Sinko K, Jagsch R, Benes B, et al. Facial aesthetics and the assignment of personality traits before and after orthognathic surgery. *Int J Oral Maxillofac Surg* 2012;**41**:469–76.
18. Islam S, Aleem F, Ormiston IW. Subjective assessment of facial aesthetics after maxillofacial orthognathic surgery for obstructive sleep apnoea. *Br J Oral Maxillofac Surg* 2015;**53**:235–8.
19. Walker TW, Gately F, Stagnell S, et al. Can UK undergraduate dental programmes provide training in non-surgical facial aesthetics? *Br Dent J* 2017;**222**:949–53.
20. Cameron M, Westcott L. Maxillofacial training is no longer than other surgical specialties. *Ann R Coll Surg Engl* 2008;**90**:146–9.
21. Giles JA. Surgical training and the European Working Time Directive: the role of informal workplace learning. *Int J Surg* 2010;**8**:179–80.
22. Hallam MJ, Lo S, Mabvuure N, et al. Implications of rationing and the European Working Time Directive on aesthetic breast surgery: a study of trainee exposure in 2005 and 2011. *J Plast Reconstr Aesthet Surg* 2013;**66**:e37–42.
23. Romani M, Ashkar K. Burnout among physicians. *Libyan J Med* 2014;**9**:23556.
24. Morrison CM, Rotemberg SC, Moreira-Gonzalez A, et al. A survey of cosmetic surgery training in plastic surgery programs in the United States. *Plast Reconstr Surg* 2008;**122**:1570–8.
25. Qureshi AA, Parikh RP, Myckatyn TM, et al. Resident cosmetic clinic: practice patterns, safety, and outcomes at an academic plastic surgery institution. *Aesthet Surg J* 2016;**36**:NP273–80.