Received: 14 September 2024 | Accepted: 9 December 2024

DOI: 10.1111/aos.17433

Acta Ophthalmologica

ORIGINAL ARTICLE

Is it the right time to promote competency-based European Training Requirements in Ophthalmology? *A European Board of Ophthalmology survey*

Lea Dormegny[1] | **Helena Prior Filipe**[2] | **Ludovic Christophe Dormegny-Jeanjean**[3] | **Marcin Stopa**[4] | **Wagih Aclimandos**[5] | **Rimvydas Asoklis**[6] | **Huban Atilla**[7] | **Catherine Creuzot-Garcher**[8] | **Denise Curtin**[9] | **Barbara Cvenkel**[10] | **Lisa Flanagan**[11] | **Renata Ivekovic**[12] | **Tero T. Kivelä**[13] | **Rafael Martinez Costa**[14] | **Sorcha Ní Dhubhghaill**[15] | **Siegfried Priglinger**[16] | **Brendan Strong**[11] | **Joerg Sturmer**[17] | **Marie José Tassignon**[18] | **Ophthalmology ETR working group** | **Anna Maino**[19] | **Tristan Bourcier**[1]

Correspondence
Lea Dormegny, Strasbourg University Hospital, 1, Place de l'Hôpital, 67000 Strasbourg, France.
Email: lea.dormegny@chru-strasbourg.fr

Abstract

Purpose: To report national practices and recent progress in competency-based medical education (CBME) implementation in ophthalmology across European countries.

Methods: A 30-question online survey was emailed to European Union of Medical Specialists (UEMS) ophthalmology section delegates, European Board of Ophthalmology Diploma (EBOD) examiners and presidents of ophthalmology societies affiliated with UEMS/EBO.

Results: A total of 230 ophthalmologists with an average age of 54.7 years [30–77] and from 28 countries completed the survey. Half of them had been involved as medical educators for more than 10 years. The majority (74%) exercised their educational role in a University Hospital. Ninety six percent of them dedicated less than 50% of their activity to teaching. A third dedicated more than a half of their activity to patient care. The teaching of skills reported (medical, surgical, research, attitudinal and theoretical knowledge) was significantly better applied than their assessment. While 91% of the respondents found it necessary to harmonize European Training Requirements (ETR) in ophthalmology, competency-based education concepts were rarely implemented in their country (for instance, 8% for CBME; 6% for entrustable professional activities (EPAs) and 3% for ETR).

Conclusions: Despite considerable diversity in European residency programmes, post-graduate medical education leaders in ophthalmology agree on the need to find a platform for equivalence in the content of the basic training requirements that constitute the professional identity of a practicing ophthalmologist.

KEYWORDS
competency-based medical education, entrustable professional activities, European Board of Ophthalmology, European Training Requirements, European Union of Medical Specialists, ophthalmology residency curriculum

Lea Dormegny and Helena Prior Filipe both provided essential work for the conduct of this study and the writing of this manuscript and should both be considered as first authors.

For affiliations refer to page 414.

1 | INTRODUCTION

The design of a high-standard and thoughtful ophthalmology curriculum is required to help ophthalmologists reach a high level of medical and/or surgical competence, and consequently improve patient vision care. International awareness of this need has led to the development of competency-based medical education (CBME), an outcome-based training model, and the establishment of key competencies to reshape residents' curricula in ophthalmology, proposed by regulatory and accrediting bodies (Wentzell et al., 2020).

The European countries have shown their ambition to harmonize education and training in ophthalmology, particularly through the founding of the European Board of Ophthalmology (EBO) by the Ophthalmology Section of the European Union of Medical Specialists (UEMS) in 1992. The core mission of the EBO is to guarantee the highest standards of care in ophthalmology in EU countries by ensuring a high level of training. While ophthalmology residency duration is not the same in all EU countries, and surgical training exposure may differ (Ní Dhubhghaill et al., 2023), every resident in the European Union must achieve the same level of medical knowledge, assessed by a single final examination: the EBO Diploma (EBOD) examination, a similar national or international examination, or both (Mathysen et al., 2016). In some countries, the EBOD has replaced the national examination (Cornel, 2015). In this diverse context of ophthalmological education, it is time for the EBO and UEMS ophthalmology sections to harmonize the residency training curriculum across Europe and to create and promote their European Training Requirements (ETRs).

ETRs should be designed to harmonize post-graduate medical education (PGME), which has recently been moving towards CBME (Frank et al., 2010; Orgill & Simpson, 2014), and guide a curriculum for residency training. Specialist training in ophthalmology should have a structured design that facilitates building knowledge and understanding of the discipline, developing clinical skills and professional identity (i.e. attitude, soft skills) at a level appropriate for an independent ophthalmologist (International Council of Ophthalmology, 2006). Several frameworks of competencies exist, describing the professional abilities to develop across all medical education stages until retirement, such as the CanMEDs (Frank et al., 2015), the ACGME framework (Edgar et al., 2020) and Miller's Pyramid, a hierarchical framework for clinical skills assessment (Miller, 1990).

Rather than being time- and content-based, professional identity can be underpinned by an outcomes-based curriculum that relies on the demonstration of performance of Entrustable Professional Activities (EPAs) (Ten Cate, 2013). EPAs refers to a framework within medical education where trainees are evaluated on their ability to perform certain critical tasks. As discrete, observable units of professional practice, they require simultaneous proficiency in several competencies, combine knowledge and skills and define professional identity. They translate competencies into practice (Ten Cate & Schumacher, 2022).

Five entrustment levels of practice supervision have been described for EPAs: (1) observation but without execution; (2) execution of EPAs with direct, proactive supervision; (3) then reactive supervision upon request; (4) unsupervised practice entrusted to a sufficiently competent resident; and (5) supervision of junior residents. EPAs are the mainstay for workplace-based assessment (WPBA) and by defining performance expectations, they articulate residents, public stakeholders and curricula training outcomes (Dent et al., 2023).

To ensure best practices and high standards in the training of health professions for the best quality of services and patient care, there is a great need for consensus among EU countries for the implementation of CBME and all the above-mentioned concepts.

Given the need to harmonize the training in Europe and create ETRs, our study aimed to (i) better understand the national specificities of PGME in ophthalmology and (ii) share the recent evolutions of CBME with the implementation of EPAs and programmatic assessment in EU countries.

2 | MATERIALS AND METHODS

2.1 | Questionnaire creation, dissemination and data collection

An anonymous 30-question survey entitled 'European Training Requirements for Ophthalmology (Charter for Residency Training in European Community. Chapter 6)' was created by the EBO and UEMS ETR core working group (H.P.F., R.I., D.C., W.A., T.B.) (Table S1). The content and face validity of the survey were reviewed by the EBO executive and advisory committees. The final version of the questionnaire was prepared on an electronic platform (SurveyMonkey Europe UC; Dublin, Ireland). Invitations to complete the survey were sent by email on 20 November 2023 to ophthalmology and medical education leaders, representing the UEMS ophthalmology section, EBO national delegates, national societies presidents and presidents of the European ophthalmology societies (EUPO, EGS, ESCRS, ESOPRS, ESOP, Euretina). Two follow-up reminders were sent via email. Participants were offered no compensation. The survey was closed on 22 December 2023. No identifying data apart from the city and country of the respondents were collected. Consent to use participants responses was obtained via the final question of the survey. This study was approved by the Ethics Committee of the French Society of Ophthalmology (IRB 00008855 Société Française d'Ophtalmologie IRB#1).

2.2 | Statistical analysis

Quantitative variables for general characteristics of the participants were expressed as means with standard deviation, proportions and medians, with 25th and 75th percentiles. Qualitative variables were extracted from participants' responses on 5-point Likert scales and

numerically converted (from −2 to 2) for the statistical analyses. The corresponding qualitative responses from the original survey were given in each Figure and Table legend for more clarity.

Responses were dichotomized between 'positives' (i.e. 1 and 2 on the Likert scales, corresponding respectively to 'agree' and 'strongly agree', or '≥50%–75%' and above) and 'negative' responses (i.e. −2, −1 and 0 on the Likert scales). Distributions of dichotomized answers were compared with uniform distribution using Pearson's Chi-squared test. *p*-values were converted in *Z*-score and results were considered if the *Z* score was >|2|. Questions with less than 10 responses were not analysed.

Responses were averaged by country for statistical analyses conducted on the entire sample. Comparisons between countries were made using the raw data, without calculating the mean values of responses.

Distribution of quantitative variables was assessed using a Shapiro–Wilk test. Comparisons were then performed with Student's *t*-test, when the variable was normally distributed, or Mann–Whitney *U*-test. Results were considered if $p<0.05$ with Bonferroni correction when applicable. The analyses were carried out with JASP Team (2022). JASP (version 0.16.4) [Computer software].

3 | RESULTS

3.1 | General characteristics and activity distribution of respondents

The survey was sent to 546 participants who met the entry criterion. A total of 234 responses were received. Four surveys were excluded: three of them were duplicates (surveys received twice from the same respondent) and one respondent had not given written consent for the use of answers. Finally, 230 surveys completed by ophthalmologists from 28 different countries were analysed. The response rate was 42.1%.

The characteristics and profiles of the respondents are summarized in Table 1.

3.2 | Analysis by country

The distribution of respondents' activity by country is detailed in Table 2.

Of the 28 countries included, the University Hospital was the primary workplace reported in 23 of them (82%). Respondents from Portugal, Slovakia, Switzerland and the United Kingdom (UK) reported private practice as their main activity (75%, 50%, 50% and 58%, respectively), while respondents from Austria worked mainly in non-University Hospitals (57%). Only three countries reported healthcare system activity (Belgium, Turkey and the United Kingdom: 12.5%, 10% and 42% of the activity, respectively), and one, humanitarian activity (Belgium: 12.5%). In each country, the participants were mainly clinical educators. The main role reported in the Czech Republic and Romania was chair of the department (100% and 67%, respectively); academic in Italy, Latvia, the Slovak Republic, Slovenia and Turkey (55%, 100%, 100%, 100% and 80%, respectively). Participants from Poland and Turkey stated that they had been in medical education the longest (1.67 ± 0.58 with 100% > 30 years and 1.2 ± 0.63 with 90% > 30 years, respectively).

Patient care was the main activity in all countries represented. In most countries, more time was spent on medical activity. However, Denmark, Finland, Germany, Ireland, Italy, Poland, Portugal, Romania, Slovak Republic and the United Kingdom spent more time on surgical activity.

3.3 | Participants' evaluation of skills (teaching and assessment) and the implementation of competency-based concepts implementation

Fifty percent of participants reported their teaching activity to be part of a hospital programme accredited by a national authority. Participants either agreed or strongly agreed that medical, surgical, research, attitudinal and theoretical knowledge skills were taught in their hospital in 100%, 64%, 39%, 21% and 71% of cases, respectively. These skills were significantly less frequently assessed than taught (43% vs. 100%, $p<0.001$; 25% vs. 64%, $p<0.001$; 11% vs. 39% $p<0.001$; 11% vs. 21%, $p<0.001$; and 21% vs. 71% respectively). Evaluations for teaching and assessing these five skills are detailed for each country in Table S2.

When comparing the skills together, medical skills were taught significantly more often than other skills. They were assessed significantly more often than others, with the exception of surgical skills ($p>0.05$) (Figure 1).

Among all participants, 82% reported having heard of the ETR concept, while this percentage was 61%, 39%, 21%, 43% and 43% for CBME, EPAs, CanMeds framework, ACGME competencies framework and Miller's pyramid of clinical competence, respectively. Considering all of these concepts, less than 8% of participants in Europe reported implementing them (8% for CBME; 6% for EPA and Miller's Pyramid; 5% for CanMeds and ACGME; and 3% for ETR).

Per country, the analysis revealed a higher implementation rate of these concepts in three countries: United Kingdom (50% for CBME, 47% for EPAs, 33% for Miller's Pyramid), Netherlands (40% for EPAs and 30% for CanMeds) and Ireland (33% for CBME, CanMeds, ACGME and Miller's Pyramid). On the other hand, in Estonia, Denmark, Poland, Romania and Slovenia, none of these concepts were used, although all participants (100%) declared that their implementation was necessary (see Figure 2).

Ninety-one percent of participants agreed or strongly agreed that it is necessary to harmonize the ophthalmology training requirements in European countries, and 69% estimated that it would be feasible to achieve this goal in 5 years by the national authorities, accepting and implementing the ophthalmology ETRs.

Fifty-nine percent of participants ($n=137$) affirmed they would like to be part of the working group tasked to describe the ETRs for ophthalmology and 78% would

TABLE 1 General characteristics, activity and educational role of responders.

General characteristics of responders			
No. of responders	230		
No. of countries	28		
Mean age of responders, years ± mean [range]	54.7 ± 7.3 [30–77]		
No. of females (%)	77 (33%)		
Involvement as medical educator since, *n* (%)[a]			
>5 years	3 (1.3%)		
6–10 years	44 (19.3%)		
11–19 years	65 (28.5%)		
20–29 years	76 (33.3%)		
>30 years	40 (17.5%)		
Duration of residency in their country, *n* (%)			
2 years	3 (1.3%)		
3 years	5 (2.2%)		
4 years	95 (41.5%)		
5 years	77 (33.6%)		
>5 years	49 (21.4%)		
Main activity and educational role of responders[b]	**Mean percentage ± standard deviation**		
Mainly work in			
Private practice	23 ± 21		
University Hospital	73 ± 21		
Non-university Hospital	12 ± 17		
Health care system	4 ± 10		
Military	0.2 ± 1		
Humanitarian medicine	1 ± 3		
Research	6 ± 12		
Role in medical education			
Clinical educator	73 ± 25		
Chair of department	38 ± 30		
Residency programme director	24 ± 19		
Researcher	32 ± 22		
Academic	53 ± 30		
Activity distribution[b] Answers going from '2' to '−2' (*2 = 76%–100%; 1 = 51%–75%; 0 = 26%–50%; −1 = 1%–25%; −2 = 0%*)	**Median [25th:75th]**	**%≥1 (%≥50%–75%)**	***Z* score** χ^2
Dedicate professional time in			
Care	0.58 [0.24:1.0]	32%	1.57
Teaching	−0.62 [−1.0: −0.4]	0%	5.16[c]
Research	−1.0 [−1.0: −0.94]	0%	5.16[c]
Humanitarian medicine	−1.8 [−2.0: −1.44]	0%	4.56[c]
Team management	−1.0 [−1.0: −0.74]	0%	4.97[c]
Legal medicine	−1.76 [−2.0: −1.61]	0%	4.55[c]
Clinical activity distribution			
Medical ophthalmology	0.32 [0:0.5]	7%	4.39[c]
Surgical ophthalmology	0.12 [−0.02: 0.5]	10%	4.0[c]
Fellowship and support Answers going from '2' to '−2' (*2 = Strongly Agree; 1 = Agree; 0 = Neutral; −1 = Disagree; −2 = Strongly disagree*)	**Median [25th:75th]**	**%≥1 (%≥Agree)**	***Z* score** χ^2
Subspecialty fellowship recommended	1.18 [0.97: 1.39]	80%	8.8[c]
Supported to develop competencies as medical educator	0.85 [0.5: 1.0]	46%	0.54

Note: In 96% of cases, residency duration was greater than or equal to 4 years. Three participants indicated a residency duration of 2 years (Belgium, France and Germany), and five participants of 3 years (Denmark, Finland, Germany, Ireland and Switzerland). The majority (74%) identified their main activity and educational role to take place in a University Hospital. The majority declared themselves as clinical educators (73%) or academics (53%). Appropriate support from the university of the workplace to develop their competencies as medical educators was reported in 46% of cases. Concerning participants' activity distribution, patient care represented 51%–75% of the activity for 32% of the participants, while teaching represented less than 50% of the activity in 96% of the participants (less than 25% in 36%). Research, humanitarian medicine, team management and legal medicine represented less than 25% of the activity in 71%, 96%, 56% and 96% of the participants, respectively. Surgical and medical ophthalmology were reported to represent more than half of the clinical practice of the participants in 10% and 7% of cases, respectively.

[a]Number of responders for this question was 228/230 (two participants did not answer the question in the survey).

[b]Due to unequal number for participants per country, mean participants' results per country were used to overcome fixed effect.

[c]Significantly different from hazard.

TABLE 2 Activity and time distribution, occupation and fellowship recommendations from the participants, listed per country.

	Participants		Activity distribution[a]	Time distribution	Main occupation	Subspecialty fellowship recommended after residency
			***Three most represented activities*;** **Calculated from survey answers:** **−2 = 0%** **−1 = 1%–25%** **0 = 26%–50%** **1 = 51%–75%** **2 = 76%–100%**	**Between MO and SO;** **Calculated from survey answers:** **−2 = 0%** **−1 = 1%–25%** **0 = 26%–50%** **1 = 51%–75%** **2 = 76%–100%**	**Proportion of:** **Private practice** **U.H.** **Non-U.H.** **Health care system** **Military** **Missionary** **Research**	**Calculated from survey answers:** **−2: Strongly disagree** **−1: Disagree** **0: Neutral** **1: Agree** **2: Strongly agree**
Country (no. of responders)	**No. F**	**Mean age**				
	%	**Years ± SD**	**Median [25th:75th]/% ≥1[b]/*Z* score (χ^2)[b]**	**Median [25th: 75th]/% ≥1[b]/*Z* score (χ^2)[b]**	**(Main three proportions, %)**	**Median [25th: 75th]/% ≥1[b]/*Z* score (χ^2)[b]**
Austria (*n* = 7)	3 (43%)	58.9 ± 3.6	*1-Patient Care*: 0 [−0.5:1.0]/43% *2-Team management*: 0 [0–0.5]/29% *3-Teaching*: −1 [−1: 0]/29%	SO: 0 [−1: 0.5]/29% MO: 1 [−1: 1.5]/57%	57% Non-U.H. 43% U.H. 29% Private practice	1 [0.5: 1]/71%
Belgium (*n* = 8)	5 (63%)	58.4 ± 8.3	*1-Patient Care*: 0 [−1: 1.25]/38% *2-Teaching*: −1[−1: −0.75]/0% *3-Team management*: −1[−1: −0.75]/0%	SO: 0 [−1: 0]/14% MO: 0.5 [0: 1.25]/50%	75% U.H. 25% Private practice 12.5% Health Care system 12.5% Missionary	1 [0: 1.25]/63%
Bulgaria (*n* = 1)	0 (0%)	45	*1-Patient Care*: 0 [N/A] *2-Teaching*: −1 [N/A] *3-Research*: −1 [N/A]	SO: 0 [N/A] MO: 0 [N/A]	100% U.H.	1 [N/A]
Croatia (*n* = 1)	0 (0%)	60	*1-Patient Care*: 2 [N/A] *2-Teaching*: −1 [N/A] *3-Research/Humanitarian/Team management*: −1 [N/A]	SO: −1 [N/A] MO: 1 [N/A]	100% U.H.	2 [N/A]
Czech Republic (*n* = 2)	2 (100%)	53.5 ± 4.9	*1-Patient Care*: 0 [0–0]/0% *2-Teaching/Research/Team management*: −1 [−1: −1]/0%	SO: −0.5 [−0.75: −0.25]/0% MO: 0.5 [0.25: 0.75]/50%	100% U.H.	0.5 [0.25: 0.75]/50%
Denmark (*n* = 5)	3 (60%)	49.6 ± 2.5	*1-Patient Care*: 1 [0: 1]/60% *2-Teaching/Research/ Team management*: −1 [−1: −1]/0%	SO: 0 [0: 0]/20% MO: 0 [0: 0]/0%	60% U.H. 40% Private practice 20% Non-U.H.	0 [0: 0]/20%
Estonia (*n* = 3)	1 (33%)	52 ± 7.8	*1-Patient Care*: 1 [0.5: 1]/67% *2-Teaching/Team management*: −1 [−1: −1]/0%	SO: 0 [0: 0]/0% MO: 0 [0: 0.5] /33%	67% U.H. 33% Non-U.H.	2 [1.5: 2]/100%
Finland (*n* = 2)	0 (0%)	54	*1-Patient Care*: 0.5 [0.25: 0.75]/50% *2-Teaching/Team management*: −1 [−1: −1]/0%	SO: 0.5 [0.25: 0.75]/50% MO: 0 [0: 0]/0%	100% U.H.	−0.5 [−0.75: −0.25]/0%
France (*n* = 37)	9 (24%)	50 ± 11.2	*1-Patient Care*: 0 [0: 1]/46%/3.19[c] *2-Teaching*: −1 [−1: 0]/5%/0.25 *3-Research*: −1 [−1: −0.25]/0%/5.38[c]	SO: 0 [0: 0]/22%/3.31[c] MO: 0 [0: 1]/38%/1.12	81% U.H. 19% Non-U.H. 14% Private practice	1 [0: 2]/73%/2.61[c]
Germany (*n* = 26)	6 (23%)	55.7 ± 7.1	*1-Patient Care*: 1 [1: 1]/77%/2.51[c] *2-Teaching*: −1 [−1:0]/0%/5.0[c] *3-Research*: −1 [−1: −1]/0% /4.55[c]	SO: 1 [0: 1]/57%/0.17 MO: 0 [−1: 0]/15%/3.34[c]	54% U.H. 23% Non-U.H. 23% Private practice	1 [0: 1]/69%/1.65

TABLE 2 (Continued)

Country (no. of responders)	Participants: No. F (%)	Participants: Mean age (Years ± SD)	Activity distribution[a]: *Three most represented activities*; Calculated from survey answers: −2 = 0%, −1 = 1%–25%, 0 = 26%–50%, 1 = 51%–75%, 2 = 76%–100% (Median [25th:75th]/%≥1[b]/*Z* score (χ^2)[b])	Time distribution: Between MO and SO; Calculated from survey answers: −2 = 0%, −1 = 1%–25%, 0 = 26%–50%, 1 = 51%–75%, 2 = 76%–100% (Median [25th: 75th]/%≥1[b]/*Z* score (χ^2)[b])	Main occupation: Proportion of: Private practice, U.H., Non-U.H., Health care system, Military, Missionary, Research (Main three proportions, %)	Subspecialty fellowship recommended after residency: Calculated from survey answers: −2: Strongly disagree, −1: Disagree, 0: Neutral, 1: Agree, 2: Strongly agree (Median [25th: 75th]/%≥1[b]/*Z* score (χ^2)[b])
Greece (*n* = 19)	9 (47%)	53.3 ± 7.1	*1-Patient Care*: 1 [0.25: 1.75]/68%/1.56 *2-Teaching*: −1 [−1: 0]/11%/3.37[c] *3-Research/Team management*: −1 [−1: −1]/0%/3.58[c] and 2.64[c]	SO: 0 [0: 0.5]/26%/3.08[c] MO: 1 [0: 1]/53%/2.8[c]	47% U.H. 37% Private practice 21% Non-U.H.	2 [1: 2]/84%/2.86[c]
Ireland (*n* = 4)	1 (25%)	53.3 ± 3.7	*1-Patient Care*: 0.5 [0: 1]/50% *2- Teaching*: 0.5 [−0.25: 1]/50% *3-Research/Humanitarian/Team management*: −1 [−1:-1]/0%	SO: 0 [0: 0.5]/33% MO: 0 [−0.25: 0.5]/25%	100% U.H.	1.5 [1: 2]/100%
Italy (*n* = 11)	3 (27%)	52.8 ± 11.6	*1-Patient Care*: 0 [0: 1]/45%/0.48 *2-Teaching*: 0 [−1: 0]/0%/2.98[c] *3-Research*: −1 [−1: −0.5]/0.1%/2.36[c]	SO: 1 [0: 1]/64%/0.35[c] MO: 0 [−0.5: 0.5]/27%/1.07[c]	91% U.H. 18% Private practice 18% Research	1 [1: 2]/82%/1.74
Latvia (*n* = 1)	0 (0%)	43	*1-Patient Care/Teaching*: 0 [N/A] *2- Research/Humanitarian/Team management*: −1 [N/A]	SO: 0 [N/A] MO: 0 [N/A]	100% U.H.	0 [N/A]
Lithuania (*n* = 2)	1 (50%)	57.5 ± 0.7	*1-Patient Care*: 1 [1: 1]/100% *2-Teaching*: −0.5 [−0.75: −0.25]/0% *3-Research*: −1 [−1: −1]/0%	SO: −0.5 [−0.75: −0.25]/0% MO: 0.5 [0.25: 0.75]/50%	100% U.H.	1 [1: 1]/100%
Malta (*n* = 2; *n* = 1 for residency question)	0 (0%)	52 ± 5.7	*1-Patient Care*: 1.5 [1.25: 1.75]/100% *2-Teaching/ Research*: −1 [−1: −1]/0%	SO: 0.5 [−0.25: 1.25]/50% MO: 0.5 [−0.25: 1.25]/50%	100% U.H. 50% Private practice	1.5 [1.25: 1.75]
Norway (*n* = 2)	0 (0%)	57 ± 9	*1-Patient Care*: 0 [−0.5: 0.5]/50% *2-Research*: 0.5 [−0.75: −0.25]/0% *3-Teaching/Team management*: −1 [−1: −1]/0%	SO: 0 [−0.5: 0.5]/50% MO: 0 [−0.5: 0.5]/50%	100% U.H.	1.5 [1.25: 1.75]/100%
Poland (*n* = 3)	2 (67%)	61.3 ± 7	*1-Patient Care*: 0 [0: 0.5]/33% *2-Teaching*: 0 [0: 0]/0% *3-Research*: −1 [−1: −0.5]/0%	SO: 1 [1: 1.5]/100% MO: 0 [−0.5: 0]/0%	100% U.H. 33% Private practice	1 [1: 1.5]/100%
Portugal (*n* = 8)	1 (13%)	59 ± 9.8	*1-Patient Care*: 1 [0: 2]/63% *2-Teaching*: −1 [−1: 0]/0% *3-Research/Team management*: −1 [−1: −1]/0%	SO: 1 [−0.25: 1]/63% MO: 0 [−0.25: 0.25]/25%	75% Private practice 63% U.H. 38% Non-U.H.	2 [1.75: 2]/88%
Romania (*n* = 3)	1 (67%)	47.7 ± 9.1	*1-Patient Care*: 1 [0.5: 1.5]/67% *2-Humanitarian*: −0.5 [0.75: −0.25]/0% *3-Teaching/Research*: −1[−1: −1]/0%	SO: 1 [0.5: 1.5]/66% MO: −1 [−1: −0.5]/0%	100% U.H. 33% Private practice	1 [0.5: 1.5]/67%

(Continues)

TABLE 2 (Continued)

Country (no. of responders)	Participants: No. F (%)	Participants: Mean age (Years ± SD)	Activity distribution[a]: *Three most represented activities*; Calculated from survey answers: −2 = 0%, −1 = 1%–25%, 0 = 26%–50%, 1 = 51%–75%, 2 = 76%–100%. Median [25th:75th]/%≥1[b]/*Z* score (χ^2)[b]	Time distribution: Between MO and SO; Calculated from survey answers: −2 = 0%, −1 = 1%–25%, 0 = 26%–50%, 1 = 51%–75%, 2 = 76%–100%. Median [25th: 75th]/%≥1[b]/*Z* score (χ^2)[b]	Main occupation: Proportion of: Private practice, U.H., Non-U.H., Health care system, Military, Missionary, Research. (Main three proportions, %)	Subspecialty fellowship recommended after residency: Calculated from survey answers: −2: Strongly disagree, −1: Disagree, 0: Neutral, 1: Agree, 2: Strongly agree. Median [25th: 75th]/%≥1[b]/*Z* score (χ^2)[b]
Slovakia (*n* = 2)	1 (50%)	52.5 ± 10.6	*1-Patient Care/Teaching*: 0 [0: 0]/0 and 50% *2- Research*: 0 [−0.5: 0.5]/0%	SO: 1 [1: 1]/100% MO: 0.5 [−0.25: 1.25]/50%	50% U.H. 50% Private practice	1 [1: 1]/100%
Slovenia (*n* = 5)	4 (80%)	58.4 ± 6.5	*1-Patient Care*: 1 [1: 1]/80% *2-Teaching*: 0 [0: 0]/0% *3-Team management*: −1 [−1: 0]/0%	SO: 0 [−1: 0]/0% MO: 0 [0: 1]/40%	100% U.H. 20% Private practice	1 [1: 2]/80%
Spain (*n* = 22)	6 (25%)	52.75 ± 8.8	*1-Patient Care*: 1 [1: 1.75]/86%/3.22[c] *2-Teaching*: −1 [−1:0]/18%/3.06[c] *3-Research/Team management*: −1 [−1: −1]/0%/4.32[c] and 4.55[c]	SO: 0 [−0.5: 0]/18%/2.77[c] MO: 1 [0: 1]/68%/1.35[c]	88% U.H. 46% Private practice 8% Non-U.H.	1 [1: 2]/92%/4.13[c]
Sweden (*n* = 6)	3 (50%)	56.5 ± 5.5	*1-Patient Care*: 0.5 [0: 1]/50% *2-Team management*: 0.5 [−1: 2]/50% *3-Teaching*: −1 [−1: −0.25]/0%	SO: −1 [−1: 0.5]/33% MO: 2 [2: 2]/100%	100% U.H. 17% Private practice	1.5 [1: 2]/80%
Switzerland (*n* = 13)	2 (14%)	57.7 ± 10	*1-Patient Care*: 1 [1: 2]/77%/1.57 *2- Research*: −1 [−1: −1]/8%/2.66[c] *2- Teaching*: −1 [−1: −1]/0%/3.56[c]	SO: 0 [0: 1]/50%/0.57 MO: 0 [0: 1]/50%/0.57	50% U.H. 50% Private practice 29% Non-U.H. 29% Research	1.5 [1: 2]/86%/2.43[c]
Netherlands (*n* = 10)	5 (50%)	57 ± 10.9	*1-Patient Care*: 0.5 [0: 1]/50%/0.16 *2-Team management*: −1 [−1: 0]/0%/2.72[c] *3-Teaching/Research*: −1 [−1: −1]/0%/2.72[c]	SO: 0 [0: 0.25]/20%/1.27 MO: 0.5 [0: 1]/50%/0.16	80% U.H. 30% Non-U.H.	1 [1: 1]/90%/2.28[c]
Turkey (*n* = 9)	4 (40%)	60.5 ± 5	*1-Patient Care*: 0 [0: 1]/33% *2-Teaching*: 0 [−1: 0]/20% *3-Research*: −1 [−1: −1]/0%	SO: 0 [−1: 1]/33% MO: 0 [−1: 1]/33%	90% U.H. 30% Private practice 10% Health care system 10% Research	2 [1: 2]/89%
UK (*n* = 12)	5 (42%)	58.7 ± 8.4	*1-Patient Care*: 1 [1: 1.25]/92%/2.66[c] *2-Teaching*: −1 [−1: 0]/0%/3.27[c] *3-Team management*: −1 [−1: −1]/18%/2.04[c]	SO: 1 [−0.25: 2]/58%/0.16 MO: 0.5 [0: 1]/42%/0.16	58% Private practice 50% U.H. 42% Health care system	2 [1: 2]/92%/0

Abbreviations: MO, medical ophthalmology; [N/A]: Non applicable (one participant only); SO, surgical ophthalmology; SD, standard deviation; UK, United Kingdom.

[a]Activities represented: Humanitarian medicine, Legal medicine, Patient care, Research, Teaching, Team management.

[b]% ≥1 and *Z* score considered applicable for countries with more than 2 and 10 responders, respectively.

[c]Significantly different from hazard.

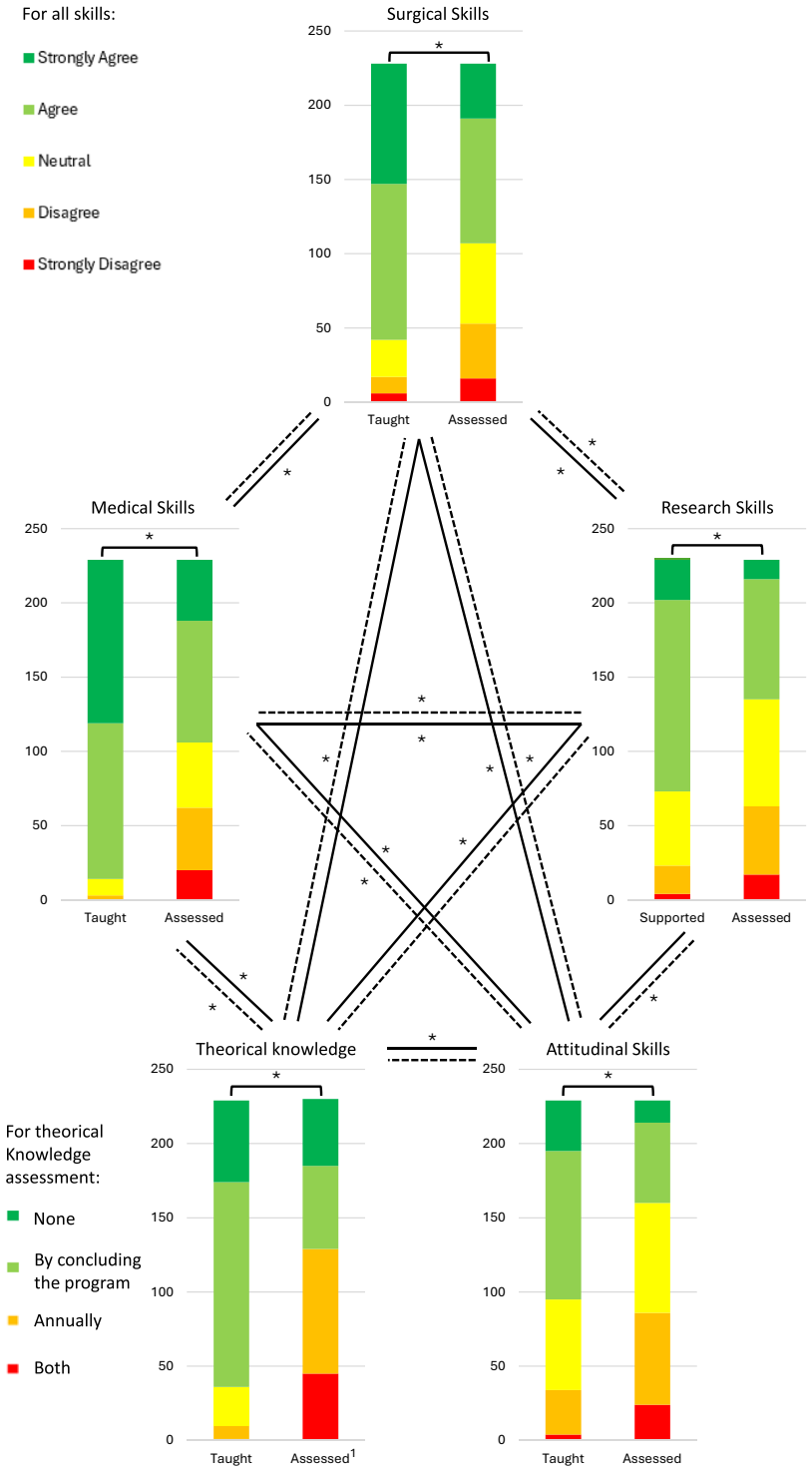

FIGURE 1 Responders' qualitative evaluation for skills teaching (« taught ») and assessment (« assessed ») in their workplace including medical, surgical, research, attitudinal (that is medical professionalism) and theoretical skills. Statistical comparisons of these results were made using the Wilcoxon signed-rank test. Continuous black lines are used for skills taught and dotted lines are for skills assessed. Teaching for one skill was systematically better rated compared to its assessment. Medical, surgical and theoretical knowledge skills seemed better considered than research and attitudinal skills. *Statistically significant after Bonferroni correction ($p<0.001$). [1]Legend for theoretical knowledge assessment is as follows: Dark green square = None; light green square = By concluding the programme; orange square = Annually; red square = Both.

like to learn more about these concepts in a workshop organized by an online EBO UEMS Ophthalmology Section. Further comments were gathered through an open-ended question (Q27), which was analysed independently by two authors (H.F.P. and T.B.) using thematic analysis (Table S3).

4 | DISCUSSION

Our investigation confirmed the diversity in European residency programmes, while there is still a high need and willingness for global improvement in teaching activities. Indeed, teaching activity represented less than

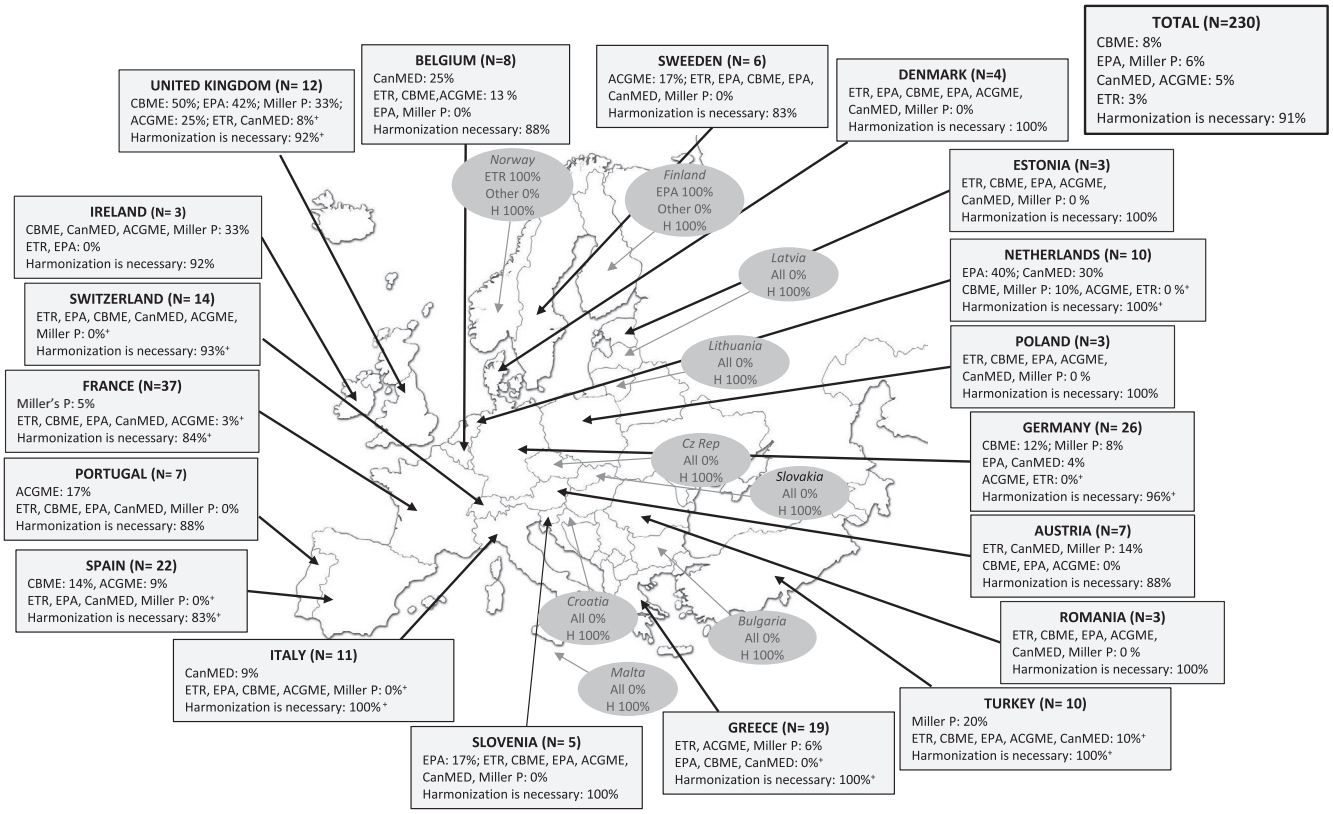

FIGURE 2 The proportion of participants who implemented ETRs, CBMEs, EPAs, CanMEDs, ACGMEs and Miller's Pyramid in their centres for each country along with the proportion of participants who think harmonization of ETRs in European countries is necessary. Countries with two or fewer participants are represented in grey rounds. Data for the entire European sample are given in the top right corner of the figure. $^{+}$Significantly different from hazard according to Z score (χ^2), only applied for countries with more than 10 responders. ACGME, Accreditation Council for Graduate Medical Education; All, Represents all 6 illustrated concepts; CanMEDs, Canadian Medical Education Directions for Specialists; CBME, Competency-Based Medical Education; Cz Rep, Czech Republic; EPA, Entrustable Professional Activities; ETR, European Training Requirements; Miller's P, Miller's Pyramid; H, harmonization is necessary (for countries with two or fewer participants only); *N*, number of participants per country.

50% of participants' activity in 96% of cases, and less than 25% in 36% of cases (Tables 1 and 2). Competency-based education frameworks were even less implemented (8% for CBME; 6% for EPAs and Miller's Pyramid; 5% for CanMeds and ACGME frameworks; and 3% for ETR) (Figure 2). Nevertheless, European residency programme leaders share the mutual goal of harmonizing postgraduate medical education in ophthalmology (91% of the participants). By harmonization, the investigators and authors mean the realization of a platform that ensures substantial equivalence of fundamental standards for defining an ophthalmology specialist, who can provide high-quality eyecare in any European country, or worldwide. This is already underway in several other medical and surgical specialties affiliated with the UEMS (UEMS, 2024).

Most clinical educators declared that they mainly work in University Hospitals (73%). This brings an increased opportunity for residents to develop special skills in research and academic fields. PGME usually represents a transition from the Universities and Education Ministry to the Health Ministry tutelage and from there onwards. The ethos in both learning environments can offer a disparate assistance component in the second, which seems to be confirmed in our study. Moreover, respondents ascertain a good time of their practice in patient care, which ensures residents a good and varied clinical case exposure.

The duration of the residency programmes still varies with a tendency to be approximately 4 years. Only eight participants declared that the duration of residency programme in their country was 2 or 3 years. However, as their answers were not in line with those of respondents from the same countries, one might wonder if they were mistaken. Indeed, the certification of competent ophthalmology specialists at a European level requires the completion of an entire formal graduated residency programme in ophthalmology of at least 4 years duration (Mathysen et al., 2016).

The need to re-enforce learnings from the residency programme and to further specialize in a particular area of ophthalmology through a fellowship is also welcomed by most of the participants, who encouraged subspecialized fellowship after residency in 80% of cases (Table 1).

Assessment drives learning and should guide teaching. Residency programmes with clear, specific, measurable, attainable, relevant and time-bound objectives are more likely to be outcome successful, particularly when using contextualized competence assessment (Kassam et al., 2024). Assessment should rely on appropriate tools and strategies for the goals and objectives defined and shared among all faculty and residents (Tabish, 2008). In our investigation, we found a discrepancy between teaching and assessment, especially in learning domains such as research and the attitudinal component of competency.

This is thus an area of further improvement and inquiry. The ACGME showed great concern for assessment methods in medical education, providing recommendations, methods and tools for competency-based assessment in medical education in the 'Assessment Guidebook', on which further work on this subject could rely (Holmboe & Lobst, 2020). This guidebook also introduces EPAs as a strategy for structuring clinical assessment which has gained support, describing the essential work of the profession rather than attributes of the learner provided by milestones and competencies. Thus, developing EPAs in European countries might help improve their level of assessment in medical education.

Contrasting a European wider awareness, implementation and experience with CBME and its translation into the practice setting by the EPAs, the United Kingdom and the Netherlands stood out with a higher implementation rate (42% and 40%, respectively), which is likely related to the Western Anglo-Saxon origin of the concepts (Cate, 2018). Since their introduction in 2005, EPAs have been documented in many specialty training, including medical (Fessler et al., 2014; Kerth et al., 2022; Landzaat et al., 2017; Pinilla et al., 2020; Valding et al., 2022; von Streng et al., 2022) and surgical specialties (Kitto et al., 2024). Of the 42 studies included in Kitto et al.'s scoping review of EPAs in surgical specialties, only two were held in European countries (Switzerland and Germany, for general surgery and neurovascular microsurgery, respectively) (Diwersi et al., 2022; Van Lieshout et al., 2022) and none included ophthalmology specialty. EPAs development was mostly done through the creation of one initial large list of potential EPAs through consultation processes in which stakeholders were invited to closed meetings, workshops or focus groups. Rounds discussions were then used to reduce the list (Amare et al., 2022; Brasel et al., 2019; Karthikeyan & Pulimoottil, 2019; Lindeman et al., 2021; Moore et al., 2017; Nousiainen et al., 2022; Van Lieshout et al., 2022; Watson et al., 2021). These results are in line with the urgent need for European residency programme leaders to define EPAs in ophthalmology, inspired by the methods previously used in surgical specialties.

When considering other educational concepts in our study, CBME was reported to be mainly implemented in the United Kingdom and Ireland (50% and 33%, respectively), and CanMeds in Ireland and Belgium (33% and 25%, respectively) (see Figure 2). Initially developed in North America, these concepts have been challenging to teach and assess and there is still considerable work to successfully implement CBME curricula within ophthalmology residency programmes in those countries (Wentzell et al., 2020). CanMeds have been used by several European societies for the elaboration of a validated curriculum for residents in their specialties like thoracic surgery, oncology and general medicine (Benstead et al., 2021; Massard et al., 2020; Steinhaeuser et al., 2013). Still, other outcome-based education programmes have been developed in Europe, such as Tomorrow's Doctor or Scottish Doctor, created in the United Kingdom and Scotland, respectively (Ellaway et al., 2007; Torralba et al., 2020).

To our knowledge, this is the first investigation gathering several European countries, sharing an affiliation to a supranational organization (UEMS) that translates their willingness to work towards harmonizing Competency-Based Education fundamental European Training Requirements and the corresponding EPAs to make it work in practice. Participation in the online survey was 42.1%, claiming the vivid wish and proactivity to create a platform for agreement on this subject.

Further explorations of national particularities for CBME implementation and the use of other assessment tools (projects, portfolios, presentations, task performances) still needs to be made. Recently, it has been shown that existing national curriculum needs to be better standardized at a European level, based on ophthalmology residents' reports underlying heterogeneous achievement of competencies especially in terms of surgical competences (Anaya-Alaminos et al., 2023).

Limitations are related to the type of study conducted here (observational, declarative using an online self-administered survey). A mixed methods investigation could support our study results and should be pursued in the future. However, the open-ended question could help capture some information, in addition to the survey's answers. Several questions might have been misunderstood, notably due to national particularity, which resulted in discrepancies. For example, the length of the residency frequently differed between respondents from one same country. Also, specific additional questions on national programmes would have been enlightening and could have helped to understand those discrepancies. The response rate reported here (42.1%) was lower compared to the average response rate for surveys used in organizational research (52.7% when collecting data from individuals), according to a recent analysis (Baruch & Holtom, 2008). This might be explained by the difficulty to reach the targeted population (sender unknown to the mailbox of the recipient, which might land in spam or an old email address which is not consulted anymore). Also, reluctance of respondents to complete the questionnaire might also have happened due to the high number of questions in our survey and lack of time for the respondents to concentrate on it (Baruch & Holtom, 2008). Also, respondents may not be fully representative of all ophthalmology educators in Europe as the survey was distributed to specific groups within the ophthalmology community for a targeted approach.

5 | CONCLUSION

This survey interviews European leaders in postgraduate medical education in ophthalmology and shows a strong willingness among respondents to harmonize European standards of education in this specialty. There is still diversity in European residency programmes, little time is dedicated to teaching activities, and only a few countries have structurally implemented competency-based medical education (CBME), conceptualized on the competency frameworks such as the CanMeds, the ACGME Framework and supported on the Miller's Pyramid. Medical education in ophthalmology seems to

essentially take place in University Hospital, with specialists still having high patient care activities, which is particularly important for the clinical exposure and assessment of clinical skills of residents, particularly for entrustable professional activities (EPAs). On the other hand, academia can foster the environment to better understand and overcome discrepancies found in teaching and assessment, promote medical education as a field of inquiry, and pursue a continuous quality improvement of training programmes.

EPAs translate competencies into professional practice, are the mainstay for workplace-based assessment, and define performance expectations. Further discussion and group work is needed to validate these EPAs in the ophthalmology curriculum.

AFFILIATIONS

[1]Department of Ophthalmology, New Civil Hospital, Strasbourg University Hospital, FMTS, Strasbourg, France
[2]Department of Ophthalmology, West Lisbon Hospitals Center, Hospital Egas Moniz, Lisboa, Portugal
[3]Department of Physiology and Functional Explorations, University Hospitals of Strasbourg, ICube laboratory, CNRS UMR 7357, University of Strasbourg, Strasbourg, France
[4]Department of Ophthalmology, Poznan University Hospital, Poznan University of Medical Sciences, Poznan, Poland
[5]King's College Hospital, London, UK
[6]Department of Ophthalmology, Center of Eye Diseases, Vilnius University Hospital Santaros Klinikos, Vilnius, Lithuania
[7]Department of Ophthalmology, Ankara University, School of Medicine, Ankara, Turkey
[8]Department of Ophthalmology, DExamijon University Hospital, University of Dijon, Dijon, France
[9]Royal College of Surgeons in Ireland, Dublin, Ireland
[10]Department of Ophthalmology, University Medical Centre Ljubljana, Faculty of Medicine, University of Ljubljana, Ljubljana, Slovenia
[11]FS Exam Service Ltd., Dublin, Ireland
[12]Department of Ophthalmology, University Medical Centre Sestre Milosrdnice, Zagreb, Croatia
[13]Department of Ophthalmology, University of Helsinki and Helsinki University Hospital, Helsinki, Finland
[14]Department of Ophthalmology, Hospital Universitario y Politécnico La Fe, University of Valencia, Valencia, Spain
[15]Department of Ophthalmology, Brussels University and University Hospital of Brussels, Brussels, Belgium
[16]Department of Ophthalmology, LMU Munich, Munich, Germany
[17]Augenärzte am Bahnhof, St. Gallen, University of Zurich, Zurich, Switzerland
[18]Department of Ophthalmology, Antwerp University and University Hospital of Antwerp, Brussels University Hospital VUB, Brussels, Belgium
[19]Manchester Royal Eye Hospital, Manchester, UK

ORCID

Lea Dormegny https://orcid.org/0000-0001-7632-9687
Catherine Creuzot-Garcher https://orcid.org/0000-0002-3587-4598
Barbara Cvenkel https://orcid.org/0000-0002-7402-1854
Tero T. Kivelä https://orcid.org/0000-0003-1198-4394
Marie José Tassignon https://orcid.org/0000-0001-8302-8006

REFERENCES

Amare, E.M., Siebeck, M., Sendekie, T.Y., Fischer, M.R. & Berndt, M. (2022) Development of an Entrustable Professional Activities (EPA) framework to inform surgical residency training programs in Ethiopia: a three-round National Delphi Method Study. *Journal of Surgical Education*, 79, 56–68.

Anaya-Alaminos, R., Rassmussen, M.L., Fung, S.S.M., Potic, J. & González-Andrades, M. (2023) Comparative analysis of European residency programs: benchmarking and harmonizing ophthalmology training in Europe. *Eye (London, England)*, 37, 725–731.

Baruch, Y. & Holtom, B.C. (2008) Survey response rate levels and trends in organizational research. *Human Relations*, 61, 1139–1160.

Benstead, K., Lara, P.C., Eller, Y., Engell-Noerregaard, L., Eriksen, J.G., Gaye, P.M. et al. (2021) Clinical oncology module for the ESTRO core curriculum. *Radiotherapy and Oncology*, 156, 19–22.

Brasel, K.J., Klingensmith, M.E., Englander, R., Grambau, M., Buyske, J., Sarosi, G. et al. (2019) Entrustable professional activities in general surgery: development and implementation. *Journal of Surgical Education*, 76, 1174–1186.

Cate, O.T. (2018) A primer on entrustable professional activities. *Korean Journal of Medical Education*, 30, 1–10.

Cornel, S. (2015) EBOD–the European standard examination in ophthalmology. *Romanian Journal of Ophthalmology*, 59, 127–128.

Dent, D.L., Patnaik, R., Atkinson, A., Shomette, J.D., Mascitelli, J.R., Page-Ramsey, S.M. et al. (2023) Implementation of entrustable professional activities in multiple surgical residencies: a quality improvement approach. *American Journal of Surgery*, 226, 868–872.

Diwersi, N., Gass, J.-M., Fischer, H., Metzger, J., Knobe, M. & Marty, A.P. (2022) Surgery goes EPA (Entrustable professional activity) – how a strikingly easy to use app revolutionizes assessments of clinical skills in surgical training. *BMC Medical Education*, 22, 559.

Edgar, L., McLean, S., Hogan, S.O., Hamstra, S. & Holmboe, E.S. (2020) *The milestones guidebook*. Chicago, Illinois, United States: ACGME.

Ellaway, R., Evans, P., McKillop, J. et al. (2007) Cross-referencing the Scottish doctor and tomorrow's doctors learning outcome frameworks. *Medical Teacher*, 29, 630–635.

Fessler, H.E., Addrizzo-Harris, D., Beck, J.M., Buckley, J.D., Pastores, S.M., Piquette, C.A. et al. (2014) Entrustable professional activities and curricular milestones for fellowship training in pulmonary and critical care medicine: report of a multisociety working group. *Chest*, 146, 813–834.

Frank, J.R., Snell, L. & Sherbino, J. (2015) CanMEDS 2015 physician competency framework. Ottawa Royal College of Physicians and Surgeons of Canada.

Frank, J.R., Snell, L.S., Cate, O.T., Holmboe, E.S., Carraccio, C., Swing, S.R. et al. (2010) Competency-based medical education: theory to practice. *Medical Teacher*, 32, 638–645.

Holmboe, E.S. & Lobst, W.F. (2020) ACGME Assessment Guidebook.

International Council of Ophthalmology. (2006) Principles and guidelines of a curriculum for education of the ophthalmic specialist. *Klinische Monatsblätter für Augenheilkunde*, 223(Suppl 4), S3–S48.

Karthikeyan, P. & Pulimoottil, D.T. (2019) Design and implementation of competency-based postgraduate medical education in otorhinolaryngology: the pilot experience in India. *Indian Journal of Otolaryngology and Head & Neck Surgery*, 71, 671–678.

Kassam, A., de Vries, I., Zabar, S., Durning, S.J., Holmboe, E., Hodges, B. et al. (2024) The next era of assessment within medical education: exploring intersections of context and implementation. *Perspectives on Medical Education*, 13, 496–506.

Kerth, J.-L., van Treel, L. & Bosse, H.M. (2022) The use of entrustable professional activities in pediatric postgraduate medical education: a systematic review. *Academic Pediatrics*, 22, 21–28.

Kitto, S., Fantaye, A.W., Zevin, B., Fowler, A., Sachdeva, A.K. & Raiche, I. (2024) A scoping review of the literature on entrustable professional activities in surgery residency programs. *Journal of Surgical Education*, 81, 823–840.

Landzaat, L.H., Barnett, M.D., Buckholz, G.T., Gustin, J.L., Hwang, J.M., Levine, S.K. et al. (2017) Development of entrustable professional activities for hospice and palliative medicine fellowship training in the United States. *Journal of Pain and Symptom Management*, 54, 609–616.e1.

Lindeman, B., Brasel, K., Minter, R.M., Buyske, J., Grambau, M. & Sarosi, G. (2021) A phased approach: the general surgery experience adopting Entrustable professional activities in the United States. *Academic Medicine*, 96, S9–S13.

Massard, G., Tabin, N., Konge, L., Frick, A.E., Batirel, H., Brunelli, A. et al. (2020) Training curriculum for European thoracic surgeons: a joint initiative of the European Society of Thoracic

Surgeons and the European Respiratory Society. *European Journal of Cardio-Thoracic Surgery*, 57, 418–421.
Mathysen, D.G.P., Ringens, P.J., Midena, E., Klett, A., Sunaric-Mégevand, G., Martinez-Costa, R. et al. (2016) Procedural aspects of the organization of the comprehensive European Board of Ophthalmology Diploma examination. *Journal of Educational Evaluation for Health Professions*, 13, 27.
Miller, G.E. (1990) The assessment of clinical skills/competence/performance. *Academic Medicine*, 65, S63–S67.
Moore, D., Young, C.J. & Hong, J. (2017) Implementing entrustable professional activities: the yellow brick road towards competency-based training? *ANZ Journal of Surgery*, 87, 1001–1005.
Ní Dhubhghaill, S., Sanogo, M., Lefebvre, F., Aclimandos, W., Asoklis, R., Atilla, H. et al. (2023) Cataract surgical training in Europe: European Board of Ophthalmology survey. *Journal of Cataract and Refractive Surgery*, 49, 1120–1127.
Nousiainen, M.T., Bardana, D., Gofton, W., Broekhuyse, H.M., Kraemer, W. & the Specialty Committee for Orthopaedic Surgery. (2022) Creating a national competency-based curriculum for orthopaedic surgery residency: the Canadian experience. *JBJS Open Access*, 7(1), e21.00131.
Orgill, B.D. & Simpson, D. (2014) Toward a glossary of competency-based medical education terms. *Journal of Graduate Medical Education*, 6, 203–206.
Pinilla, S., Lenouvel, E., Strik, W., Klöppel, S., Nissen, C. & Huwendiek, S. (2020) Entrustable professional activities in psychiatry: a systematic review. *Academic Psychiatry*, 44, 37–45.
Steinhaeuser, J., Chenot, J.-F., Roos, M., Ledig, T. & Joos, S. (2013) Competence-based curriculum development for general practice in Germany: a stepwise peer-based approach instead of reinventing the wheel. *BMC Research Notes*, 6, 314.
Tabish, S.A. (2008) Assessment methods in medical education. *International Journal of Health Sciences*, 2, 3–7.
Ten Cate, O. (2013) Nuts and bolts of entrustable professional activities. *J Grad Med Educ*, 5, 157–158.
Ten Cate, O. & Schumacher, D.J. (2022) Entrustable professional activities versus competencies and skills: exploring why different concepts are often conflated. *Advances in Health Sciences Education: Theory and Practice*, 27, 491–499.
Torralba, K.D., Jose, D. & Katz, J.D. (2020) Competency-based medical education for the clinician-educator: the coming of milestones version 2. *Clinical Rheumatology*, 39, 1719–1723.
UEMS. (2024) European Training Requirements.
Valding, B., Monti, M., Junod Perron, N., Frick, S., Jaques, C., Nendaz, M. et al. (2022) Entrustable professional activities for residency in general internal medicine: a systematic review. *Swiss Medical Weekly*, 152, 40002.
Van Lieshout, J.H., Malzkorn, B., Steiger, H.-J. et al. (2022) Defining activities in neurovascular microsurgery training: entrustable professional activities for vascular neurosurgery. *Acta Neurochirurgica*, 165, 27–37.
von Streng, P.T., Masud, T., Huwendiek, S., Blundell, A., Vassallo, M. & Stuck, A.E. (2022) Geriatric medicine learning objectives and entrustable professional activities in undergraduate medical curricula: a scoping review. *Age and Ageing*, 51, afac100.
Watson, A., Leroux, T., Ogilvie-Harris, D., Nousiainen, M., Ferguson, P.C., Murnahan, L. et al. (2021) Entrustable professional activities in orthopaedics. *JBJS Open Access*, 6(2), e20.00010.
Wentzell, D.D., Chung, H., Hanson, C. & Gooi, P. (2020) Competency-based medical education in ophthalmology residency training: a review. *Canadian Journal of Ophthalmology*, 55, 12–19.

SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

How to cite this article: Dormegny, L., Prior Filipe, H., Dormegny-Jeanjean, L.C., Stopa, M., Aclimandos, W., Asoklis, R. et al. (2025) Is it the right time to promote competency-based European Training Requirements in Ophthalmology? *A European Board of Ophthalmology survey. Acta Ophthalmologica*, 103, 404–415. Available from: https://doi.org/10.1111/aos.17433