## ORIGINAL ARTICLE



Acta Ophthalmologica

# Fellowships across Europe: Insights from the European Board of Ophthalmology Survey

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#### **Abstract**

**Purpose:** Analyse the results of a European Board of Ophthalmology (EBO) survey on post-residency training (fellowship) opportunities across Europe, providing insights from ophthalmic educators on the current landscape.

**Methods:** A cross-sectional study was conducted using an anonymous 31-question online survey distributed to educators in all EBO-affiliated countries.

**Results:** The response rate was 61% with participation of 392 ophthalmic educators. Despite broad participation, Southwestern Europe was overrepresented, while Northern and Central Europe were underrepresented, affecting regional balance. Respondents had a mean age of 51±11 years, with 37.8% as professors and 46.6% as department heads. Most (54.1%) were affiliated with university hospitals. The reported median percentage of residents pursuing post-residency training was 25%, varying between 15% and 100%, with 15.3% of respondents uncertain about their existence, especially in non-university hospitals. Post-residency training durations were predominantly 1 or 2 years. National diplomas were highly valued except in the United Kingdom; language proficiency was required in 84.2% of countries. Respondents reported a median of three positions per department, with 60% filled by local residents. Surgical activity accounted for 65%, with regional variations, whereas 40% of positions involved research. Observerships remained rare (10%). Financial compensation was provided in 67% of cases. A national medical licence was deemed essential, whereas the EBO diploma and letters of recommendation were moderately valued, especially in Northern Europe. Fellowships were highly recommended by 76.2%, while 63% believed that grants would improve access to positions.

Conlusion: This survey represents the largest data set on post-residency training in Europe. Results highlight a lack of cohesion in fellowship opportunities, with many respondents uncertain about national programmes. A national medical licence remains the primary requirement, while language proficiency and financial support are key factors influencing access. Institutional support for medical educators is increasing, yet challenges persist regarding time, resources and funding. Focusing on subspecialty training and research, fellowships are crucial for career progression. Expanding training opportunities through

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international initiatives could further enhance accessibility and standardisation across Europe.

#### KEYWORDS

Europe, fellowship, medical education, ophthalmology, post-residency training, subspecialisation, survey

## 1 | INTRODUCTION

According to the Accreditation Council for Graduate Medical Education (ACGME) and the American Medical Association (AMA), a fellowship is an advanced medical training period that physicians can pursue after completing their speciality training (residency program) (FREIDA™ AMA Residency & Fellowship Programs Database (website), n.d.; The ACGME for Residents and Fellows (Website), n.d.). This period typically lasts more than 1 year, during which the medical professional is referred to as a fellow. In ophthalmology, it allows for additional surgical or clinical training in a variety of subspecialties such as cornea, glaucoma, retina, uveitis, paediatrics or neuro-ophthalmology (non-exhaustive list). In addition to clinical training, fellowships often provide research opportunities that support pursuing a career as an academic clinician (Azzam et al., 2024). One of the key markers of commitment to a subspecialty is academic output, with fellowships that emphasise research productivity leading to greater academic success post fellowship (Huang et al., 2015; Sandhu & Lim, 2018). Career trajectories following fellowship have been studied in the United States and can vary by region. Azzam et al. (2024) found that many fellows in the Northeast and Midwest of the United States pursue academic careers, while those in the West often opt for community practice. The increasing pursuit of fellowships raises questions about whether some residents feel their residency training lacks adequate clinical and surgical exposure in comprehensive ophthalmology or seek additional, specialised training in a desired subspecialty.

Existing ophthalmology literature lacks studies that explore the rationale behind choosing a fellowship, particularly in comparison to other medical specialities. Most studies to date have focused on the motivations of applicants rather than those of educators and residency program directors (Ali et al., 2022; Czyz et al., 2022; Gedde et al., 2005; Solomon et al., 2022). The motivation to undertake a fellowship can be extrinsic, driven by financial benefits in the short or long term, or intrinsic, stemming from a desire to enhance one's skills. In many cases, extrinsic and intrinsic factors coexist, influencing the impact and retention of acquired skills (Morris et al., 2022). Additionally, career plans, such as choosing between hospital-based and private practice, may significantly affect fellowship decisions. Several agencies have projected an overall shortage of ophthalmologists. However, the distribution of subspecialty-trained ophthalmologists remains a pressing issue, with potential implications for healthcare access and service distribution (Berkowitz et al., 2024).

In the United States, the ACGME accredits most ophthalmology fellowships, whereas in select states, the American Board of Physician Specialties provides alternative certification. Some fellowships operate without ACGME accreditation but are still well regarded due to the significance of board certification in a primary speciality. Ophthalmology fellowships in the United States are centrally regulated through the San Francisco Matching Program (SFMatch) (Sfmat ch.org n.d.). Each year around 500 new ophthalmology residents begin training in the United States (Cohen & Pershing, 2022). Over the past 15 years, there has been a significant increase in the percentage of ophthalmology residents pursuing fellowship training, rising by nearly 20%. Additionally, the number of available subspecialty fellowships has increased by 12% over 5 years. Several studies have explored the factors influencing career choices among graduating ophthalmology residents.

Unlike in the United States, European countries lack a uniform definition of an ophthalmology fellowship. The educational objectives and duration vary significantly, likely due to differences in initial ophthalmology training. Consequently, the structure of ophthalmology post-residency training in Europe remains insufficiently known. The European Society of Ophthalmology (SOE) maintains a database of ophthalmology education opportunities, highlighting a lack of centralisation in fellowship programs ('SOE Vision Fellowships' n.d.). This variation results in discrepancies in accessibility, selection criteria, financial considerations and accreditation regulations. Certain European countries, such as Switzerland, France, the United Kingdom, Ireland, Spain, Portugal, Italy and Poland, offer permanent positions after residency for ophthalmologists, which may influence the demand for fellowship training. A recent study published in 2023 identified significant disparities in surgical training across Europe (Dhubhghaill et al., 2023). Two predominant models exist: one where all ophthalmologists receive surgical training and another where a selected group are performing a high volume of surgeries in their post-residency position. Despite these differences, there is a broad consensus on the need for post-residency positions to enhance clinical and surgical expertise. There is no comprehensive data on ophthalmology fellowship programs across Europe, highlighting a gap in the literature that requires further investigation.

This study aims to provide data to better understand the current landscape of ophthalmology education and fellowship opportunities in Europe. The objectives include identifying key figures responsible for

ophthalmology education in Europe, mapping the current fellowship programme offerings and examining the selection and regulatory criteria for fellowship training programmes as well as proposing a consensus definition for these roles. The results of this study may offer valuable insights into the factors influencing the increasing number of ophthalmology residents pursuing fellowship training and the broader implications for workforce distribution in the field.

# 2 | METHODS

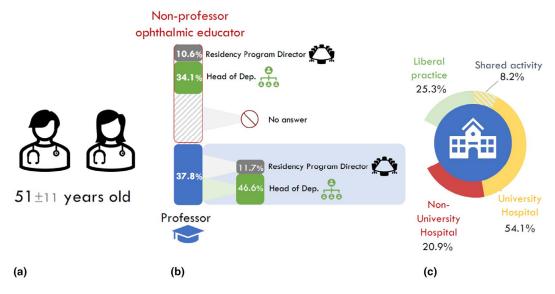
A cross-sectional study was conducted using an anonymous questionnaire titled 'European Fellowship Survey'. Data collection involved a dynamic questionnaire with 6-31 questions, depending on branching logic (File S1). Demographic data were gathered, and no identifying information was collected apart from the respondents' age, position and country. The European Board of Ophthalmology (EBO) and UEMS Ophthalmology section drove the study. Ethical approval was obtained from the French Society of Ophthalmology Ethics Committee (IRB 00008855 Société Française d'Ophtalmologie IRB#1). The questionnaire was created using Microsoft Forms, and on 24 May 2024, the EBO Office sent email invitations to the national delegates, who then distributed it in each country, to a total of 643 participants meeting our definition of medical educators in ophthalmology. A medical educator is a professional who trains and develops medical students, residents and practising physicians. Their roles encompass designing, delivering and managing educational programs and engaging in research to enhance teaching methodologies and curricula. Medical educators may come from diverse backgrounds, including medical, non-medical and surgical fields (Cochran et al., 2022; Horn et al., 2014; Nikendei et al., 2016). Two follow-up reminders were sent, and the survey was closed on 15 July 2024. Inclusion criteria required given consent (question 31), whereas exclusion criteria included the absence or withdrawal of consent.

# 2.1 | Statistical analysis

Descriptive statistics were applied to numerical and nominal variables. Inferential statistics included Pearson or Spearman correlation, Chi-squared tests, Student's *t*-tests or Wilcoxon Mann–Whitney tests. Multiple linear and logistic regression analyses were conducted, with a *p*-value of <0.05 considered statistically significant. Analyses were performed using Prism 9.0.0 (GraphPad, La Jolla, California, USA).

# 3 | RESULTS

The survey received 392 responses from 27 countries, corresponding to a response rate of 61%. The average time to complete the survey was 9 min and 7 s. Regarding the demographics of the respondents, the mean age was  $51 \pm 11$  years. Regarding their role in ophthalmic education, 148 respondents (37.8%) identified themselves as professors, including associate professors. Nearly half of them (46.6%) also served as heads of departments, while 21.6% held positions as residency programme directors. Among the remaining 244 respondents (62.2%), only 132 (54.1%) answered the question regarding their role in education. Of these, a little over half (55.3%) identified non-professor respondents as ophthalmic educators, one-third (34.1%) as heads of departments, and 10.6% as residency programme directors. Regarding institutional affiliations, most respondents (54.1%) were associated with university hospitals. In comparison, 20.9% worked in non-university hospitals and 25.3% were engaged in private practice (Figure 1). The respondents' fields of interest were widely distributed and evenly represented across various ophthalmic subspecialties (Figure 2). Additionally, the country of origin of respondents



**FIGURE 1** Demographics of the respondents. We questioned ophthalmic educators across Europe. (a) The reported mean age was 51±11 years. (b) Out of the 392 respondents, more than one third identified as professor (including associate professors). (c) More than the half worked at a university hospital (8.2% with a shared liberal practice).



FIGURE 2 Field of interests of the respondents. This figure presents a treemap chart illustrating the distribution of different declared ophthalmology subspecialties of our survey respondents. Each rectangle represents a subspecialty, with its size proportional to the number of respondents working in that field. Major specialties such as cataract surgery and retina are the most represented, whereas rarer fields like genetics, pathology or low vision occupy a smaller share. This visualisation provides insight into the diversity and distribution of expertise of our respondents.

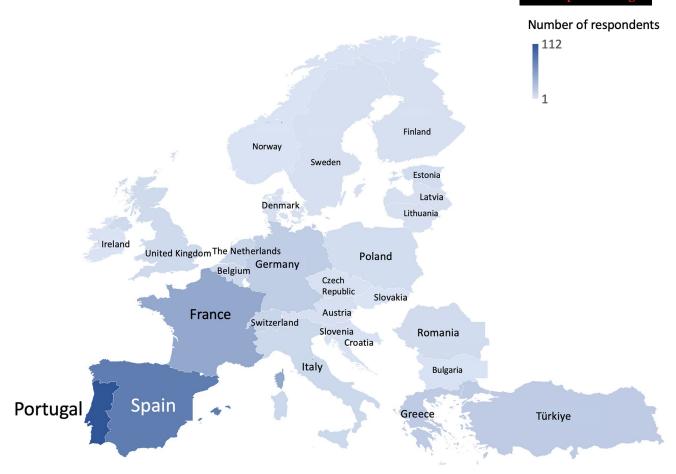
revealed that 61% were from Southwestern Europe, specifically Portugal, Spain and France (Figure 3).

Regarding post-residency positions in different countries, most respondents confirmed the existence of such positions in Belgium, Denmark, France, Ireland, Spain, Sweden, Switzerland, the Netherlands and the United Kingdom. In contrast, respondents from the Baltics and Eastern Europe reported no such opportunities in their home countries. A relatively high percentage of respondents (15.3%) were uncertain about the existence of these positions, with uncertainty being more prevalent among those working in non-university hospitals (64.8% vs. 31.1%, p < 0.001). The median percentage of residents pursuing post-residency training was reported at 25% but with significant variability among countries. The rate reached 100% in France, whereas in the United Kingdom and Ireland, it was 65% and 45%, respectively. Portugal reported a rate of 35%, whereas Switzerland, Belgium and Denmark had lower rates of around 15%. The mean duration of postresidency training also varied, with responses dominated by two models: 1-year programs in the United Kingdom, Ireland and Spain and 2-year programs in France and Portugal. The Netherlands stood as an exception, offering 6-month programs. National requirements regarding language proficiency were reported in 84.2% of countries (16/19 reported countries) offering these positions.

Each department reported a median of three available post-residency positions. Of these, 60% were occupied by locally trained residents, though this percentage varied across Europe (Figure 4). In Italy, Spain, France, Switzerland and Portugal, local residents filled all positions,

whereas in Belgium, Ireland, the Netherlands and the United Kingdom, this figure dropped to 50%, with twothirds of the remaining positions occupied by EU-trained ophthalmologists and one-third by non-EU candidates. The percentage of surgical activity associated with these positions was 65%, though regional variations were noted. Switzerland and the United Kingdom reported 100% hands-on practice, followed by France (85%) and Belgium (75%), whereas lower rates were observed in Portugal, the Netherlands and Ireland (45%). Research activity was reported by 40% of respondents, again with discrepancies among countries. The United Kingdom led with 65%, followed by France (55%), Switzerland (45%) and Portugal (40%). Belgium and the Netherlands had the lowest levels of reported research activity, at 27% and 25%, respectively. Observerships were available in 10% of institutions, with Ireland reporting the highest proportion at 45%, whereas France, Portugal, Belgium and the Netherlands reported significantly lower percentages at 5%, 10%, 7.8% and 3%, respectively. Financial compensation, defined as any emoluments received during the tenure of this position, was offered in 67% of cases, with a median monthly income of 2500 euros and a mean of 2018.3 euros. A large discrepancy was observed across countries, ranging from 500 euros in the Czech Republic to 5000 euros in Switzerland, aligning with national physician income levels.

The conditions required to obtain a post-residency position varied across countries (Figure 5). A licence issued by the medical chamber was deemed mandatory (rating of 10, Score from 1, not at all important—10, mandatory), while the importance of the European



**FIGURE 3** Country of origin of the respondents. A total of 27 countries were represented. This figure presents a heat map illustrating the number of respondents to the survey. Southern western European countries are the most represented, while Northern and Eastern Europe occupy a smaller share.

Board of Ophthalmology (EBO) diploma was rated at 5. This diploma was considered important in Belgium, Switzerland, France, Denmark, Germany and the Netherlands, whereas it held little importance in the United Kingdom, Spain and Portugal. There was a positive correlation between the perceived importance of the EBO diploma and the number of EU fellows accepted (p=0.042,  $\rho=0.2$ ), as well as between the importance of the diploma and the age of the ophthalmic educator, older respondents expressing greater attachment to the diploma (p=0.043,  $\rho=0.191$ ). The International Council of Ophthalmology (ICO) diploma had a lower rating of 1, with only respondents from Denmark and Belgium considering it relevant. National diplomas were highly valued (rated 10) in all countries except the United Kingdom, where they scored 5. Letters of recommendation were rated at 6, with higher significance in northern European countries and the Netherlands, whereas other countries considered them beneficial but not mandatory. The utility of a logbook was widely recognised, receiving a rating of 8. A practical exam was generally not required (rating of 3), and previous experience abroad was considered moderately important (rating of 5), particularly in the United Kingdom, Germany and Denmark. At the same time, it was rated as less important in the Netherlands, Switzerland, Spain and Belgium. When asked whether a grant would facilitate post-residency

training, 63% of respondents answered affirmatively, whereas 8.5% believed it would not. Finally, the recommendation to pursue a fellowship was strongly endorsed, with 76.2% of respondents rating its importance as 9 or 10, irrespective of their country of origin.

## 4 | DISCUSSION

The study's results provide insights into the demographics, landscape of post-residency training, and conditions for obtaining a fellowship position. They also open a discussion about the crucial role of trainer training in ophthalmic education.

The demographic data indicate a high response rate (61%), demonstrating good participation in the survey. Many responses were collected, ensuring a robust data set for analysis. While national regulatory authorities could provide some additional data, the diversity of systems across Europe meant including enough countries would have threatened comparability, so we relied on a uniform, questionnaire-based approach. A satisfactory representation of ophthalmic educators was observed, reflecting their diverse roles, activities and fields of interest across more than 20 European countries. To our knowledge, this is the largest data set on the topic. Ophthalmic educators predominantly hold full-time academic positions or volunteer as physicians. These results align with previous findings in

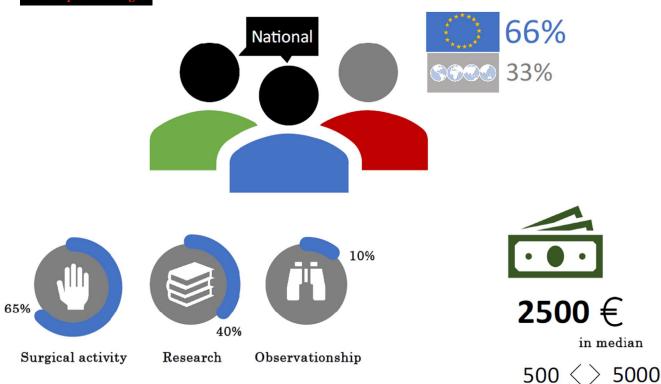


FIGURE 4 Post-residency positions offered by European ophthalmology departments. Schematically, three positions, two occupied by local residents, 1 by non-nationals (66% UE citizens, 33% outside UE). Surgical activity was reported in 65% of positions, whereas 40% involved research. Observationships were available in only 10% of institutions. Financial compensation was provided in 67% of cases, with a median monthly income of  $\epsilon$ 2500, varying from  $\epsilon$ 500 in the Czech Republic to  $\epsilon$ 5000 in Switzerland.

the literature (Mack et al., 2016). Medical educators must master diverse teaching methodologies, including clinical case studies, observerships, hands-on practice, simulations and role-playing. They should demonstrate cognitive skills—such as strong knowledge, organisational abilities, clear communication and constructive feedback—and non-cognitive skills, including enthusiasm, motivation and the ability to foster a supportive learning environment. A diverse range of trainer profiles within training programs helps achieve these objectives. On the other hand, the harmonisation of postgraduate medical education can be supported by internationally promoting a curriculum that supports the development of well-rounded ophthalmologists with comparable competency outcomes. With this goal in mind, the European Training Requirements have been established ('European Training Requirements (ETR) in Ophthalmology |' n.d.).

Despite the broad representation of ophthalmic educators, respondents were over-represented from southwestern Europe, particularly Portugal, France and Spain. We could have hypothesized that lower participation from some countries might be due to the voluntary nature of the EBO exam; however, our results show no correlation between participation rates in our study and whether the exam was mandatory. Moreover, the countries with the highest response rates (Portugal, Spain and France) are all jurisdictions in which the EBO exam remains voluntary rather than mandatory. This imbalance extends beyond geography. These countries operate within a 'surgery for all' training model, characterised by restricted access to the speciality, mandatory surgical training for residents, regional disparities and frequent use of post-residency pathways (Yaïci, Khamsy, et al., 2024; Yaïci, Martinez-Costa Pérez, et al., 2024; Yaïci, Sanogo, et al., 2025; Yaïci, Schiefelbein, et al., 2025). France exemplifies this system with its 'Assistanat' (clinical fellowship) and 'Clinicat' (clinical, teaching and research fellowship) structures. Many residents use a post-residency pathway because the latter allows access to a more advantageous system of charging fees in private practice (JOF n°0100 du 28 avril 2017, 2024). Conversely, an under-representation of responses from Anglo-Saxon countries, including the United Kingdom and Ireland, was observed. We can deplore this under-representation because they constitute an important case to analyse due to their institutionalised fellowship curricula. Similarly, countries that favour a 'high-volume surgeons' model, such as Germany, Switzerland and Poland, were underrepresented. We can also deplore this under-representation because in this model, surgical training is not part of the residency, and therefore, the need for post-residency training in this model was deemed particularly important (Anaya-Alaminos et al., 2023; Yaïci, Khamsy, et al., 2024; Yaïci, Martinez-Costa Pérez, et al., 2024; Yaïci, Sanogo, et al., 2025; Yaïci, Schiefelbein, et al., 2025). To address this limitation, we cross-referenced the collected data with publicly accessible information and findings from the scientific literature.

The landscape of post-residency training reveals a significant percentage of respondents uncertain about national training programs, suggesting an absence of cohesive policies while allowing for localised programs. This highlights the need for improved information sharing. This also likely reflects a definitional issue. There is no formally shared definition across all European

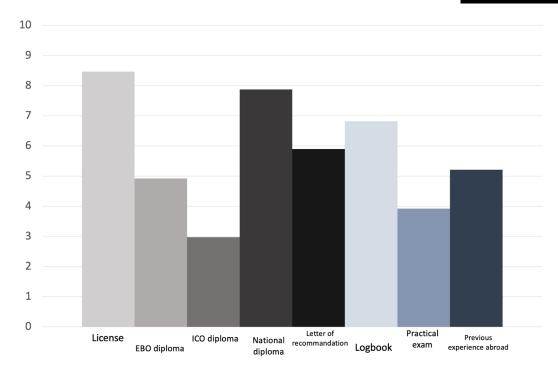


FIGURE 5 Eligibility Criteria for post-residency training programs. This bar chart illustrates the most frequently required criteria for admission to post-residency ophthalmology training programs. Each bar represents the level of importance or frequency of each criterion according to respondents. The most commonly cited requirements include a medical licence from the national regulation authority, a national diploma and a logbook, whereas factors such as prior experience abroad or a practical exam are also considered, though less frequently.

countries of what is meant by the term 'fellowship'. In this study, we deliberately adopted the broadest possible definition—as stated in question 5: post-residency positions for specialised training in ophthalmology in order to carry out this mapping exercise. Generally, post-residency positions are distributed such that local residents occupy two-thirds, while international candidates fill one-third, predominantly within the European Union. Southwestern European countries tend to retain more local residents, as their fellowship programs are perceived as an extension of residency, offering incentives such as subspecialty acquisition and higher income. The distribution of training opportunities reveals a focus on hands-on practice (65%) and research (40%), with fellowships in Southwestern Europe, the United Kingdom and France primarily emphasising practical training. Research components remain relatively underdeveloped in countries such as France, where the 'Clinicat' combines research and hands-on experience, while the 'Assistanat' focuses solely on practical training. Observerships account for less than 10% of all positions despite the potential benefits of such programs. Encouraging their expansion through existing initiatives, such as those offered by the European Glaucoma Society, the Royal College of Surgeons in Ireland, the European Board of Ophthalmology or the International Ophthalmological Fellowship Foundation, could enhance international mobility and training diversity ('European Glaucoma Society (website)' n.d.; 'International Surgical Training Fellowship' n.d.; 'Resident Exchange Centers |' n.d.). In comparison, in the United States, a study by Gedde et al. (2005) identified key motivations, including acquiring specialised skills, a more favourable job market and prestige (Gedde et al., 2005). Solomon et al. (2022) examined trends in neuro-ophthalmology fellowships, finding that strong interests in other fields, avoidance of intraocular surgery and a preference for non-surgical roles influenced applicants (Solomon et al., 2022). Czyz et al. conducted a study involving residents from programs of varying sizes and locations. The results indicated that 82% of respondents had applied or intended to apply for a fellowship position, with 61% perceiving it as easier to obtain than an ophthalmology residency. The primary reasons for pursuing a fellowship included seeking additional clinical and surgical training, though 49% of respondents still aimed to practice comprehensive ophthalmology (Czyz et al., 2022).

Conditions for obtaining a fellowship position vary across Europe, with language requirements posing a barrier for approximately 70% of respondents. However, in the remaining 30%, English proficiency is sufficient for research-based fellowships in non-English-speaking countries. Nearly all respondents indicated that a national medical licence is a prerequisite for securing a fellowship. While European Union regulations facilitate diploma recognition, the administrative processes can still be cumbersome ('Directive – 2005/36 – FR – EUR-Lex' n.d.). Selection criteria commonly include national exams, logbooks and letters of recommendation. The European Board of Ophthalmology (EBO) exam is gaining recognition, particularly among positions occupied by EU citizens, suggesting its role as a standardised qualification benchmark. The fact that roughly one third of respondents reported unpaid fellowships is striking. This raises concerns about the legality of unpaid medical work within the EU, given that EU Member States have widely varying regulations on unpaid internships and traineeships, and case law remains unclear on whether such placements qualify as lawful work. Moreover, the absence or minimal income likely introduces a socioeconomic barrier to fellowship participation. This situation disproportionately favours those with independent financial means or access to informal support networks, echoing broader patterns in the EU where unpaid roles contribute to inequities and limit opportunities for lower-income individuals. These results should be interpreted with caution, because—as previously noted—the term 'fellowship' remains ill defined. It could encompass observational or research positions that were funded by sources other than the host centre. Educational goals vary across countries, and these differences often align with national health system priorities. In systems where policymakers prioritise generalist or primary care services, funding for highly specialised units may be reduced or deprioritized. As a result, subspecialty fellowship training may be less attractive or accessible in such contexts. An Expert Panel on behalf of the European Commission, in a report published in 2014, identifies political and strategic choices, such as reallocating resources from hospital-based specialist care to primary care, as central to system reform, demonstrating how funding priorities shape services ('Definition of a frame of reference in relation to primary care with a special emphasis on financing systems and referral systems – European Commission' n.d.).

Financial support significantly influences fellowship opportunities, with 63% of respondents indicating that grants would facilitate the creation of new positions. Limited institutional funding may explain why 8.3% of respondents did not view grants as a decisive factor. Financial considerations have also been a topic of interest, with research suggesting that fellowship training does not necessarily correlate with higher income levels. A 2023 study by Ali et al. analysed the characteristics and outcomes of international medical graduates (IMGs) applying for ophthalmology fellowships in the United States. The study found a match rate of 58% for IMGs compared to 86.4% for U.S. medical graduates, with the most significant predictor of success being graduation from a U.S. residency programme (9). Despite these challenges, completing a fellowship is widely regarded as highly recommended by ophthalmologists, regardless of their country of origin.

A key issue highlighted by this study is the need for structured training of fellowship educators (Chen et al., 2017). While some medical schools offer basic teaching courses, these are often optional and limited in scope (Molenaar et al., 2009; Srinivasan et al., 2011). Trainers also face constraints in time, resources and support (Reed et al., 2007; Zibrowski et al., 2008). Recent developments in health education aim to address these gaps by strengthening the role and identity of clinician–educators (Chen et al., 2017). Exposure to strong role models, clear educational pathways, and institutional support are essential for developing the next generation of ophthalmic professionals (Wenger, 2010).

Several limitations were identified in this study. The list of educators we used may certainly be expanded, but it represents the most comprehensive data set available to us at the time. The geographical distribution of responses was unbalanced, with an overrepresentation of certain countries, irrespective of their medical demographics, which could represent a potential inclusion bias in the interpretation of the results. Furthermore, responses from the same country were not always consistent, reflecting the absence of national regulations and the localised nature of training conditions. This variability complicates interpretation but underscores the necessity of more precise guidelines. This study, while focusing on the requirements for securing a post-residency position, did not specifically examine the level of language proficiency required. The study did not examine trainees' motivations behind pursuing a fellowship, a subject that warrants further investigation. Future research could explore fellows' reasons for engaging in post-residency training, such as advanced surgical skill acquisition, medical sub-specialisation, financial considerations, career prestige or preparation for hospital or private practice roles. Understanding these motivations within the context of varying national regulations could provide valuable insights into the future development of ophthalmic fellowship programmes across Europe that the EBO or other European subspecialty societies grant. Furthermore, this study centres on subspecialty fellowship training, which inherently assumes that subspecialisation is valued within a given healthcare system. In countries where most ophthalmologists practice general ophthalmology, pursuing a fellowship may be less attractive. Consequently, the prevalence of fellowship programmes likely reflects the broader organisational structure of the specialty in each country, a point that remains underexplored in our study.

## 5 | CONCLUSION

This is an important topic in professional policy, as the findings of this study can inform potential changes to the ophthalmology residency and fellowship training systems. One key recommendation is shorter observerships, which could serve as a gateway to longer fellowship programmes. Additionally, discussions regarding facilitating administrative procedures should be prioritised to ease barriers to international mobility. Increased access to information about existing training programmes and grant opportunities would further enhance participation and equity in post-residency training. To cultivate a culture of critical thinking, reinforce evidence-based approaches, encourage ophthalmologists to evaluate their clinical practices continually and strive for higher standards of care, fellowships are essential. They provide the fertile ground for such growth, ensuring that the next generation of ophthalmologists has the skills, knowledge and experience to advance the field and deliver the highest quality patient care.

# **AUTHOR CONTRIBUTIONS**

RY contributed to the analysis and interpretation of data, wrote the main manuscript text, and prepared Figures 1–5. HPF contributed to the design of the study,

participated in the acquisition of data, and revised the manuscript. LS participated in the conception and revision of the manuscript. LD contributed to the analysis and interpretation of data and revised the manuscript. EK contributed to the analysis and interpretation of data and revised the manuscript. SND contributed to the study's design and participated in the data acquisition. RA contributed to the study's design and participated in the data acquisition. HA contributed to the study's design and participated in the data acquisition. CCG contributed to the study's design and participated in the data acquisition. DC contributed to the study's design and participated in the data acquisition. BC contributed to the study's design and participated in the data acquisition. LF participated in the acquisition of data. BS participated in the acquisition of data. TK contributed to the study's design and participated in the data acquisition. AM contributed to the study's design and participated in the data acquisition. RMC contributed to the study's design and participated in the data acquisition. RI contributed to the study's design and participated in the data acquisition. SP contributed to the study's design and participated in the data acquisition. CP contributed to the study's design and participated in the data acquisition. MS contributed to the design of the study, participated in the acquisition of data, contributed to the analysis and interpretation of data and revised the manuscript. MJT contributed to the study's design and participated in the data acquisition. WA contributed to the study's design and participated in the data acquisition. TB designed the study, participated in data acquisition and interpretation and revised the manuscript.

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### **ACKNOWLEDGEMENTS**

The authors would like to thank all anonymous participants in the survey.

#### **FUNDING INFORMATION**

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

#### CONFLICT OF INTEREST STATEMENT

The authors declare no financial or proprietary interest in the materials or methods mentioned.

# DATA AVAILABILITY STATEMENT

The data sets used and analysed during the study reported herein are available from the corresponding author upon reasonable request.

#### ETHICS STATEMENT

The study was approved by the ethics committee of the French Society of Ophthalmology (IRB 00008855 Société Française d'Ophtalmologie IRB#1). The survey informed all participants about the study's purpose, their right to withdraw at any time, and that their data would be collected, anonymised, aggregated and analysed to be part of a publication.

#### **CONSENT**

Informed consent to participate was obtained from all the study participants. The authors confirm that the study was performed in accordance with the ethical standards as laid down in the 1964 Declaration of Helsinki and its later amendments.

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## 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: Yaïci, R., Filipe, H.P., Solecki, L., Dormegny, L., Koestel, E., Dhubhghaill, S.N. et al. (2025) Fellowships across Europe: Insights from the European Board of Ophthalmology Survey. *Acta Ophthalmologica*, 00, 1–10. Available from: <a href="https://doi.org/10.1111/aos.17555">https://doi.org/10.1111/aos.17555</a>