AUPO 2022
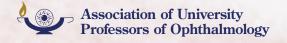
Annual Meeting

JANUARY 26–29, FORT LAUDERDALE, FL

EDUCATING THE EDUCATORS

MEETING SYLLABUS

January 26 · Fort Lauderdale, FL

Provided by AUPO Program Directors Council

Association of University Professors of Ophthalmology

Educating the Educators 2022

The Association of University Professors of Ophthalmology's Program Directors Council welcomes you to the 19th annual Educating the Educators conference in Fort Lauderdale, Florida.

The morning will begin with the optional Book Club featuring *Mindset: The New Psychology of Success*, by Carol Dweck, PhD. The opening session features "A Scholarly Approach to Wellness in our Role as Educators," which will include a presentation by guest lecturer Rachel Levine, MD, MPH on best practices for competencies as a medical educator, followed by additional presentations and a panel discussion. The morning will also include two "Guidance with Gurus" sessions where learners may join small group discussions on a myriad of topics with knowledgeable facilitators. The morning will conclude with a PDC update and organization reports.

The afternoon sessions will include the "Free Paper Session" consisting of seven presentations chosen from abstracts submitted for this year's meeting. The day will conclude with the "Don't Reinvent the Wheel" session, which will showcase novel ideas related to PGY-1 and ACGME that can be adapted or adopted to make programs better and will include crowdsource voting to choose the best presentation, with prizes to be awarded to the winners!

Don't forget to take advantage of time during the breakfast, lunch, break time and before the cocktail reception to check out the poster session!

We look forward to seeing you in Fort Lauderdale, and hope you enjoy the meeting!

Stacy Pineles, MD
Chair, Educating the Educators
Member-at-Large
AUPO Program Directors Council

Jules Winokur, MD
Chair, Guidance with Gurus Session
Member-at-Large
AUPO Program Directors Council

Jeffrey SooHoo, MD
Chair, Book Club Session
Member-at-Large
AUPO Program Directors Council

Misha Syed, MD, MEHP
Chair, Don't Reinvent the Wheel Session
Member-at-Large
AUPO Program Directors Council

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Educating the Educators Program

Wednesday, January 26

6:30 AM - 5:30 PM	Registration Open	Caribbean Registration
6:30 AM - 8:00 AM	Breakfast	Grand Salon Foyer
7:00 AM – 7:55 AM	**Book Club**	Grand Salon E
	Plan to join the EE Book Club to discuss the highly engaging and popular book, *Mindset: The New Psychology of Success*, by Carol Dweck, PhD. Dr. Dweck is a psychologist who pioneered the concept of mindset, and in particular, the differences between having a "fixed" versus "growth" mindset. Those with a growth mindset believe that abilities can be developed and are more active, engaged learners compared to those who believe that abilities are static. Importantly, Dweck describes opportunities to apply these concepts throughout multiple facets of our work and lives. The roles we play as educator-leaders in our departments allows us to foster "growth" mindset amongst our trainees and faculty, improving the quality of our work lives and our overall wellbeing.	
	7:00 AM – 7:01 AM Introduction - *Jeffrey SooHoo, MD*	
	7:01 AM – 7:10 AM Book Club: A Conversation about *Mindset: The New Psychology of Success* by Carol Dweck - *Rachel B. Levine, MD, MPH*	
	7:10 AM – 7:55 AM Book Club Discussion Groups	
8:00 AM – 8:15 AM	**Welcome and Announcement**s - *Stacy Pineles, MD*	
8:15 AM – 9:45 AM	**A Scholarly Approach to Wellness in our Role as Educators** - *Stacy Pineles, MD*	Grand Salons K-F
	This session will provide current best practices for competencies as a medical educator. Topics will include best practices for providing residents with feedback on their performance in the clinic and OR, faculty development through coaching in the operating room, and perspectives to optimize learning in the face of burnout and failing self-regulation.	
	8:20 AM – 8:50 AM Competencies for Medical Educators as a Framework for Professional Development - *Rachel B. Levine, MD, MPH*	
	8:50 AM – 9:00 AM Sharing Perspectives to Optimize Learning - How Burnout Interferes with Learning - *Stephen Blatt, MD*	
	9:00 AM – 9:10 AM The Role of Surgical Coaching in Educator Development - *Eleanore Kim, MD*	
	9:10 AM – 9:20 AM Fostering a Growth Mindset in the Clinic and OR Through Feedback - *Pavlina Kemp, MD*	
	9:20 AM – 9:30 AM Self-regulation and Self-monitoring for Educators - *Robert Swan, MD*	
	9:30 AM – 9:45 AM Panel Discussion	
9:45 AM – 10:15 AM	Break, Exhibits and Poster Viewing	Grand Salon Foyer & Salon D
10:15 AM – 11:30 AM	Guidance with Gurus Sessions - *Jules Winokur, MD* Are you looking for guidance from a guru? Would you like to have an exchange with an expert? Join these small group discussion opportunities with knowledgeable facilitators and varied topics chosen by attendees. These breakout sessions will be limited to small groups of people at a time. Multiple sessions will run concurrently. They are designed to be intimate to allow small group discussions with topic specialists.	Grand Salons K-F, Salons A, B, C
	10:15 AM – 10:45 AM **Guidance with Gurus #1 (see page 6)**	
	Social Table - Hang out and chat with new colleagues and old friends	Grand Salons K-F
	11:00 AM – 11:30 AM **Guidance with Gurus #2 (see page 6)**	
	Social Table - Hang out and chat with new colleagues and old friends	Grand Salons K-F
11:30 AM – 12:15 PM	**PDC Updates and Organizational Reports** - Moderator: *Grace Sun, MD*	Grand Salons K-F
	11:30 AM – 11:40 AM Program Directors Council Update - *Grace Sun, MD*	
	11:40 AM – 11:45 AM SF Match Update - *Dennis Thomatos*	
	11:45 AM – 11:50 AM OKAP Update - *Kathryn Peters, PMP*	
	11:50 AM – 11:55 AM Surgical Curriculum for Ophthalmology Residents - *Shahzad Mian, MD*	
	11:55 AM – 12:00 PM AAO Resident Education Committee - *Robert Swan, MD*	
	12:00 PM – 12:05 PM AAO Young Ophthalmologists - *Andrea Tooley, MD*	
	12:05 PM – 12:10 PM Association of Veteran Affairs Ophthalmologists (AVAO) - *Jennifer Lindsey, MD*	
	12:10 PM – 12:15 PM Lighthouse Guild - *Calvin Roberts, MD*	
12:15 PM – 1:15 PM	Lunch	

Educating the Educators Program

Wednesday, January 26

1:15 PM – 2:15 PM	**Free Paper Session** - Moderated by *Stacy Pineles, MD*		Grand Salons K-F
	1:15 PM – 1:16 PM	Introduction - *Stacy Pineles, MD*	
	1:16 PM – 1:22 PM	Outcomes of "Submitted" and "In Preparation" Publications from Applicants to Ophthalmology Residency Programs - *Emily Sun, BS*	
	1:22 PM – 1:28 PM	Navigating the Ophthalmology Match with a Significant Other - *Samantha Ip, BSE*	
	1:28 PM – 1:34 PM	Barriers in Ophthalmology Residency Applications for Students Identifying as Underrepresented in Medicine: A San Francisco Match Analysis - *Johsias Maru, BA*	
	1:34 PM – 1:40 PM	Representation of Skin Color in Ophthalmology Textbooks - *Tiffany Cheng, BS*	
	1:40 PM – 1:46 PM	Language Used to Consent Patients for Trainee Involvement in Surgery: Patient Comprehension - *Brandon Kennedy, MD*	
	1:46 PM – 1:52 PM	Identifying Factors Predictive of American Board of Ophthalmology Examination Performance - *Andrea Tooley, MD*	
	1:52 PM – 1:58 PM	Impact of Parental Leave on Ophthalmology Resident Physician Performance: A Multicenter Study - *Dana Huh, BA*	
	1:58 PM – 2:15 PM	Q&A - *Stacy Pineles, MD*	
2:15 PM – 2:30 PM	Break - Take time for yourself! Check out the posters! Catch up with your AUPO friends.		Posters - Salon D
2:30 PM – 4:00 PM	**Don't Reinvent the Wheel** - *Misha Syed, MD, MEHP*		Grand Salons K-F
	2:30 PM – 2:31 PM	Introduction - *Misha Syed, MD, MEHP*	
	2:31 PM – 2:39 PM	Medical Ethics in Ophthalmology Residency Training: A Pilot Curriculum - *Nitin Chopra, MD, MBA*	
	2:39 PM – 2:47 PM	Camera-augmented Binocular Indirect Ophthalmoscopy for Resident Education - *Ryan Duong, BS*	
	2:47 PM – 2:55 PM	Immersive Anatomical Virtual Reality Simulation Enhances MIGS Wet Lab Experience - *Sarah Griffin, MD*	
	2:55 PM – 3:03 PM	Implementing the Night Float System as a Model for Ophthalmology Resident Call - *Isha Mehta, DO*	
	3:03 PM – 3:11 PM	Ophthalmology Residents' Attitudes Toward Stress and Wellness when Fulfilling On-call Responsibilities - *Vish Reddy, MD*	
	3:11 PM – 3:16 PM	Q &A - *Misha Syed, MD, MEHP*	
	3:16 PM – 3:19 PM	Poll Voting	
	3:19 PM – 3:27 PM	Creating an Integrated Transitional Year Internship from Scratch - *Royce Chen, MD*	
	3:27 PM – 3:35 PM	Reinventing the Wheel: A Paradigm Shift in the Moran PGY-1 Ophthalmology Experience - *Brandon Kennedy, MD*	
	3:35 PM – 3:43 PM	Project ACQUIRE: Applied Curriculum for Quality Improvement in Resident Education - *Taj Nasser, MD*	
	3:43 PM – 3:51 PM	Integration and Assessment of a Structured PGY-1 Microsurgical Wet Lab Curriculum - *Saras Ramanathan, MD*	
	3:51 PM – 3:56 PM	Q &A - *Misha Syed, MD, MEHP*	
	3:56 PM – 3:59 PM	Poll Voting	
3:59 PM – 4:05 PM	Announcement of Winners - *Misha Syed, MD, MEHP*		Grand Salons K-F
4:05 PM – 4:15 PM	**Conclusion** - *Stacy Pineles, MD*		
5:00 PM – 5:30 PM	**New Program Director Reception with Program Directors Council and Mentors (by invitation)**		Caribbean I
5:30 PM – 6:30 PM	**EE Reception**		Dunes Coconut Terrace

Educating the Educators Posters

Poster Abstracts	Salon D
1	Transition to a Night Float System in Ophthalmology Residency: Perceptions of Resident Wellness and Performance - *Sahil Aggarwal, MD*
2	Barriers to Increasing Diversity in Ophthalmology Fellowships: A Multi-Perspective Assessment - *Nicole Carvajal, BS*
3	How do Ophthalmology Residency Program Websites Feature Diversity and Inclusion? *Samuel Cohen, BS*
4	Ophthalminute - Medical Education for the Social Media World - *Philip Dockery, MD, MPH*
5	Significance of Female Faculty and Departmental Leadership on the Gender Balance of Ophthalmology Residents - *Tova Goldstein, MD*
6	Trends in Racial and Ethnic Diversity of U.S. Residency Programs from 2011-2020 - *Lauren Hucko, MD, MPH*
7	The Triple Threat: Creating a Bootcamp for Early Career Educators to Promote Excellence and Innovation in Clinical, Surgical, and Academic Teaching - *Yekaterina Joltikov, MD*
8	Resident Surgeons' Perspectives on Intraoperative Gray Area Surgical Complications of Cataract Surgery - A*sher Khan, BS*
9	Health Disparity Curricula for Ophthalmology Residents: Current Landscape, Barriers, and Needs - *Justin Anthony Lopez, BS*
10	Integrating Internship into Ophthalmology Residency: Assessment of a Structured Microsurgical Curriculum and National Survey - *Hamidah Mahmud, BA, MPhil*
11	Possible Impediments to Clinic Follow-Up for Hospital-Based Ophthalmology Consults - *Marez Megalla, MD*
12	Using a Facebook Virtual Examination Room to Facilitate Engagement Among ROP Trainees - *Preeya Mehta, BA*
13	Delivering Bad News in Ophthalmology - *Michael Migliori, MD, FACS*
14	Optimizing Refractive Outcomes in Resident Cataract Surgeries - *Mubarik Mohamed, MD*
15	All Fun and Games? Experiences Pre- and Post-Implementation of a Flipped Classroom Model - *Rachel Patel, MD*
16	Interview Selection Process for Ophthalmology Residency Interviews - *Alex Pham, BS*
17	Using Virtual Reality (VR) to Optimize the Asynchronous PGY1 Curriculum - *Jhansi Raju, MD*
18	Standardization of On-Call Documentation - *Hetal Ray, MD*
19	Quality Improvement in Microsurgical Technique: A Supervised Wet-Lab Curriculum for First-Year Ophthalmology Residents - *Fareed Rifai, MD*
20	Factors Associated with Retention of Ophthalmology Trainees at Academic Medical Centers - *Emanuelle Rizk, BA*
21	Measuring Job Satisfaction, Well-being, and Burnout Among Ophthalmology Educators - *Karissa Sealey*
22	A Deep Dive into Ophthalmology Residency Milestones - *Erica Smith, MD*
23	Use of Porcine Exenteration Specimens to Simulate Eyelid Trauma and Laceration Repair for Ophthalmology Residents - *Adanna Udeh, MD*
24	Outcomes of a Formal Ophthalmology Residency Mentorship Program - *Sen Yang, BS*

Guidance with Gurus Schedule

Session 1	12:15 PM – 12:40 PM
ACGME - Learn and Ask Questions About the RRC - *Laura K. Green, MD*	*Grand Salons K-F*
Application Review Strategies - *Gene Kim, MD*	*Grand Salon B*
Best Practices for Evaluation of Residents - *Robert Swan, MD*	*Grand Salon A*
Beyond Competency - Becoming a Master Educator - *Rachel B. Levine, MD, MPH*	*Grand Salon B*
Career Counseling for Academic Physicians - *Shahzad Mian, MD and Richard E. Braunstein, MD*	*Grand Salons K-F*
How to Deal with the USMLE Pass/Fail - *O'Rese Knight, MD*	*Grand Salon A*
Problem Residents - Bring your Problems! - *Alice Lorch, MD and Harsha Reddy, MD*	*Grand Salon B*
Re-Engaging a Disengaged Resident - *Kelly T. Mitchell, MD*	*Grand Salon C*
Self Study Prep / Site Visit Prep - *Tetyana Schneider, PhD and Anna Momont, MD*	*Grand Salons K-F*
Structuring PGY-1 Year - *Misha Faustina, MD and Tara Uhler, MD*	*Grand Salon A*
Under-Represented in Medicine - *Fasika Woreta, MD*	*Grand Salons K-F*
Use of Social Media in Academic Medicine - *Anne Wishna, MD*	*Grand Salon C*
Wetlab Fundraising, Philanthropy, Educational Fundraising - *Dana Millet, MHA, RN and David J. Goldman, MD, MBA*	*Grand Salon A*
Women Leaders - *Kimberly Crowder, MD and Rachel Simpson, MD*	*Grand Salon C*
Social Table - Hang out and chat with new colleagues and old friends	*Grand Salons K-F*
Session 2	**11:00 AM – 11:30 AM**
Application Review Strategies - *Anjali Tannan, MD*	*Grand Salon B*
Best Practices for Evaluation of Residents - *Jamie B. Rosenberg, MD*	*Grand Salon A*
Beyond Competency - Becoming a Master Educator - *Rachel B. Levine, MD, MPH*	*Grand Salon B*
Counseling Struggling Medical Students Interested in Ophthalmology - *Aruoriwo M. Oboh-Weilke, MD and Jessica Chang, MD*	*Grand Salon C*
How to Deal with the USMLE Pass/Fail - *Andrew J. Barkmeier, MD*	*Grand Salon A*
How to Increase Resident Surgical Numbers - *Isha Mehta, DO*	*Grand Salons K-F*
Potpourri - Anything Goes! Bring up Topics with the PDC Leadership - *Grace Sun, MD and Jeff H. Pettey, MD*	*Grand Salons K-F*
Problem Residents - Bring your Problems! - *Geetha K. Davis, MD and Maria Reinoso, MD*	*Grand Salon B*
Setting up Junior Residents for Success - *Hassan Shah, MD*	*Grand Salons K-F*
SF Match - Meet with a Member of the Oversight Committee - *Misha Syed, MD, MEHP*	*Grand Salons K-F*
Structuring PGY-1 Year - *Adam H. Kaufman, MD and Royce Chen, MD*	*Grand Salon A*
Succession Planning - *Susan M. Culican, MD, PhD and Steven J. Gedde, MD*	*Grand Salons K-F*
Surgical Wetlab - *Thomas A. Oetting, MD and Jeremy Jones, MD*	*Grand Salon C*
VA Issues - *Jennifer L. Lindsey, MD*	*Grand Salon C*
Social Table - Hang out and chat with new colleagues and old friends	*Grand Salons K-F*

Free Paper Session

Outcomes of "Submitted" and "In Preparation" Publications from Applicants to Ophthalmology Residency Programs

EMILY SUN, BS*; JING TIAN, MS; BRITTANY TSOU, BS; LOAAH ELTEMSAH; FASIKA WORETA, MD, MPH

Background:

As U.S. Medical Licensing Examination Step 1 becomes pass-fail and coronavirus disease 2019 affects clerkships, research may become increasingly important for evaluating ophthalmology residency applicants. Though publication misrepresentation has been studied among ophthalmology residency applicants, eventual publication rates of incomplete manuscripts remain unknown.

Purpose:

We aimed to determine publication rates for manuscripts listed as "submitted" or "in preparation" on ophthalmology residency applications and identify factors associated with unpublished manuscripts.

Methods:

San Francisco Match applications to the Wilmer Eye Institute for the 2019 ophthalmology residency cycle were reviewed. Each applicant's number of "published," "submitted," and "in preparation" manuscripts was recorded, then verified through PubMed, Google Scholar, or journal websites. Unverifiable manuscripts were deemed "unpublished."

Results:

A total of 458 applications were reviewed. Of 428 "submitted" publications, 126 (29.4%) remained unpublished after two years. Of 324 "manuscripts in preparation," 215 (66.4%) remained unpublished. In a multivariate model, a top-tier medicine clerkship grade was associated with having an unpublished manuscript (OR: 0.6, p=0.0311). Gender, Step 1 score, additional degrees, and a research year had no association.

Conclusions:

Nearly two-thirds of manuscripts listed as "in preparation" remained unpublished. Specific guidance from research mentors may help applicants better represent their publications in residency applications.

Navigating the Ophthalmology Match with a Significant Other

SAMANTHA IP, BSE*; TARA A. UHLER, MD; ERIK M. MASSENZIO, MD; EMILY SUN, BS; DIVYA SRIKUMARAN, MD; LAURA GREEN, MD; GRACE SUN, MD; FASIKA WORETA, MD, MPH

Background:

The National Residency Match Program (NRMP) Couples Match aids applicants with a significant other in medicine. It is not available for ophthalmology, which utilizes SF Match and an early match timeline. With the new integrated and joint internships, couples may potentially be geographically separated for up to four years.

Purpose:

To assess ophthalmology applicant viewpoints on navigating the match with a significant other.

Methods:

An online survey was sent to 559 ophthalmology applicants to our institution in the 2021 match cycle.

Results:

222 (40%) applicants participated. 72 (32%) had a significant other in medicine. 91% agreed that a Couples Match would be helpful. 75% of 44 respondents whose significant other also applied in 2021 reported that they would have used the Couples Match if available. 24% of those with a significant other considered not applying to ophthalmology because there was no Couples Match. Respondents were evenly split on whether the early match timeline is helpful to couples.

Conclusions:

The Couples Match is highly desired by ophthalmology applicants. The lack of such a system may influence career choice. Implementation of a Couples Match within ophthalmology and across specialties should be considered by educators.

Barriers in Ophthalmology Residency Applications for Students Identifying as Underrepresented in Medicine: A San Francisco Match Analysis

JOHSIAS MARU, BA*; JIANGXIA WANG, MS; BRITTANY TSOU, BS; EDWARD MOORE, PHD; DAVID ROSS, MD, PHD; O'RESE KNIGHT, MD; SARAS RAMANATHAN, MD; FASIKA WORETA, MD, MPH

Background:

In 2016, only 8% of ophthalmology residents self-identified as underrepresented in medicine (UiM). Barriers to recruiting diverse talent must be better understood so targeted solutions can be created to address the problem.

Purpose:

To elucidate barriers in the ophthalmology residency application that may disproportionately affect UiM applicants.

Methods:

SF Match applications submitted to a single ophthalmology residency program between 2018-21 were reviewed. UiM status, United States Medical Licensing Examination (USMLE) Step 1 score, and Alpha Omega Alpha (AOA) membership were recorded. Letters of recommendation were analyzed using a custom text analysis software. T-tests and chi-squared or fisher's tests were used to compare continuous and categorical variables, respectively.

Results:

Relative to non-UiM applicants, UiM applicants had lower USMLE Step 1 scores (mean difference=8.0; $p<0.001$). Only 20.3% of UiMs were inducted into AOA compared to 34.4% of non-UiMs ($p=0.014$). Non-UiM letters were more likely to describe applicants as "bright" ($p=0.045$) and highlight "research" ($p=0.034$). UiM letters were more likely to describe applicants as "hardworking" ($p=0.002$), "empathetic" ($p=0.019$), and "caring" ($p=0.035$).

Conclusions:

This study identified barriers for UiM ophthalmology residency applicants which can help guide future interventions to reduce them.

Representation of Skin Color in Ophthalmology Textbooks

TIFFANY CHENG, BS*; MICHAEL CURLEY, BS; ANNE BARMETTLER, MD

Background:

Nearly four of ten Americans identify with a race or ethnicity other than non-Hispanic white. While the demographic composition of the United States is ever-evolving, medical textbooks have not reflected this change.

Purpose:

The goal of this study was to quantify the representation of skin tones across three leading ophthalmology textbooks.

Methods:

Two independent investigators used the Fitzpatrick's skin phototype scale to code images containing skin as either "light" (Fitz. I-IV) or "dark" (Fitz. V-VI) in three fundamental ophthalmology textbooks: Clinical Ophthalmology (Salmon and Kanski), Ophthalmology (Yanoff and Duker), and the 13 Basic and Clinical Science Course texts by the American Academy of Ophthalmology. Images without discernible skin color were excluded.

Results:

Of the 9,766 images reviewed, 2,305 images met inclusion criteria. The three textbooks combined were found to have 2,123 (92.1%) images of light skin tones and 182 images (7.9%) of dark skin tones.

Conclusions:

Darker skin tones are significantly underrepresented in textbooks that are central to education of trainees in ophthalmology. Acknowledgment and inclusion of racial diversity in ophthalmology educational materials are necessary to ensure that physicians in the field are equipped with the knowledge and training to provide the highest level of care to all patients.

Language Used to Consent Patients for Trainee Involvement in Surgery: Patient Comprehension

BRANDON KENNEDY, MD*; ARIANA LEVIN, MD; NNANA AMAKIRI, MD; GRIFFIN JARDINE, MD

Background:

The language used in informed consent for trainee involvement in surgery often varies with provider, institution and patient population. There isn't a universal guideline of how to approach this issue in a manner that preserves patient autonomy, minimizes harm, and promotes high quality surgical training. As a result, there is an opening for unrecognized unethical action (i.e. "consenting" patients with terms that aren't understood) that becomes normalized.

Purpose:

To measure confidence levels amongst parents and guardians of patients seen in a pediatric teaching hospital in their comprehension of terms typically used to consent for trainee involvement in surgery.

Methods:

Surveys distributed to parents of pediatric patients in a teaching hospital.

Results:

In 10 surveys (preliminary data), 60% of participants felt "very confident" in their understanding of the term "resident." 10% felt "very confident" in their understanding of the term "fellow." 30% of participants did not know that a resident is a trainee. 60% did not know that an attending is not a trainee. Additional results are stratified by participants' preferred language and level of education.

Conclusions:

Terms often used to obtain consent for resident involvement in surgery are not well understood. These results will be useful in improving our consent processes in teaching hospitals.

Identifying Factors Predictive of American Board of Ophthalmology Examination Performance

ANDREA TOOLEY, MD*; ANDREW J. BARKMEIER, MD

Background:

American Board of Ophthalmology (ABO) certification involves both a written qualifying and oral examination.

Purpose:

To identify performance factors during medical school and residency which predict first-attempt passage of ABO examinations.

Methods:

A multi-institutional study reviewed ophthalmology SFMatch applications and performance during residency. Data included: sex, VISA status, Step 1-3 scores, medical school, Alpha Omega Alpha (AOA), Gold Humanism Honor Society (GHHS), PubMed publications, clerkship grades, and OKAP scores. Resident clinical performance (CP), academic performance (AP), surgical performance (SP), and global performance (GP, teamwork, honesty, etc.) were each scored from 1-5 by two faculty at each institution.

Results:

259 residents from 7 institutions were included. First time passage of WQE and oral exams was 84% and 78%, respectively. For WQE: Step-1 and 2 scores, residency AP, and OKAP scores were associated with passing on first attempt (p<0.01). For oral exam: AOA, Step-1 and 2 scores, all residency performance scores, and OKAP scores were associated with passing on first attempt (p<0.01).

Conclusions:

Objective metrics including Step-1 and 2, and OKAP scores were associated with passing WQE and oral exam on first attempt. Subjective assessments of resident clinical, surgical, academic, and global performance were all associated with oral exam performance.

Impact of Parental Leave on Ophthalmology Resident Physician Performance: A Multicenter Study

DANA HUH, BA*; MICHAEL J. FLIOTSOS, MD; JIANGXIA WANG, MS; CASEY J. BEAL, MD; CHARLINE S. BOENTE, MD, MS; PRATAP CHALLA, MD; LINDSAY M. DE ANDRADE, MD; ALICE C. LORCH, MD, MPH; SARAS RAMANATHAN, MD; MARIA A. REINOSO, MD; RAMYA N. SWAMY, MD; EVAN L. WAXMAN, MD, PHD; FASIKA WORETA, MD, MPH; DIVYA SRIKUMARAN, MD

Background:

Residents may be discouraged from utilizing parental leave due to concerns about possible negative impacts on their training. However, limited data exists on whether parental leave has any impact on objective measures of resident performance.

Purpose:

To examine parental leave utilization across multiple institutions and compare various residency performance metrics among residents who took parental leave and their peers who did not take leave.

Methods:

Retrospective review of 2015-2019 graduating residents at 10 programs. Measures of performance including research productivity, Ophthalmic Knowledge Assessment Program (OKAP) scores, milestones scores, boards performance, and surgical volumes, were compared by parental leave status.

Results:

Out of 164 residents, 29 (17.7%) took an average parental leave of 10.6 weeks (range 2.0-16.6) without extension of training. There were no significant differences in research activity, OKAP percentiles, milestones scores, or boards performance. There were no differences in most categories of surgical volume including cataracts. Residents who took leave performed more laser capsulotomy (p=0.005) and oculoplastic (p<0.001) procedures, but fewer retinal vitreous (p<0.001) procedures.

Conclusions:

Parental leave did not negatively influence any of our studied measures of resident performance. This data could provide reassurance to both trainees and program directors to support residents in taking adequate parental leave, thus enhancing resident wellbeing.

Poster Abstracts

Transition to a Night Float System in Ophthalmology Residency: Perceptions of Resident Wellness and Performance

SAHIL AGGARWAL, MD*; C. ELLIS WISELY, MD, MBA; ANDREW GROSS, MD; PRATAP CHALLA, MD

Background:

Approximately one quarter of ophthalmology residency programs face issues involving resident depression, burnout, or suicide. Concerted efforts to improve resident wellness without sacrificing training rigor should be explored.

Purpose:

To characterize the effect of a new night float rotation on resident burnout and performance in a single ophthalmology residency program.

Methods:

Three classes of ophthalmology residents were surveyed regarding their perceptions of the new night float rotation: 1 class (n=4) utilized the new night float rotation with no daytime clinical duties, while 2 senior classes (n=12) utilized a traditional call system wherein they had daytime and nighttime responsibilities. Supervising attendings (n=15) also completed a survey regarding their perceptions.

Results:

Zero of the 4 residents on the night float rotation reported burnout compared to 6 of 11 residents in the traditional call system. Most residents and attendings supported the adoption of the night float rotation. Perceived skills gained while on call were felt to be similar between the 2 call systems. Attendings perceived the clinical performance of residents in both call systems to be similar. Between the 2 call systems, there was no significant difference in the average number of patient encounters, phone encounters, and average hours worked per week per resident.

Conclusions:

A night float rotation has the potential to reduce ophthalmology resident burnout without affecting perceived clinical performance or objective patient volumes.

Barriers to Increasing Diversity in Ophthalmology Fellowships: A Multi-Perspective Assessment

NICOLE CARVAJAL, BS*; JOHSIAS MARU, BA; TESSNIM AHMAD, MD; JUSTIN LOPEZ, BS; SRIRANJANI PADMANABHAN, MD; NEETI PARIKH, MD; ALEJANDRA DE ALBA CAMPOMANES, MD, MPH; SEANNA GROB, MD, MS

Background:

Representation of groups underrepresented in medicine (UiM) is poor in ophthalmology. In 2016, 6% of practicing ophthalmologists self-identified as UiM-considerably lower than UiM representation in the US. Understanding the barriers to increasing representation in ophthalmology fellowships (OFs) may help create interventions to mitigate this problem.

Purpose:

To elucidate barriers to increasing UiM representation in OFs.

Methods:

We surveyed current US ophthalmology program directors (PDs) and residents using a 15-question, anonymous survey.

Results:

70 residents and 26 PDs completed the survey; most self-identified as non-UiM (93% of residents and 92% of PDs). Residents not interested in pursuing fellowship were most concerned about "length of training" and "future financial compensation," and least concerned about "diversity of the faculty/field" and "perceptions of minority candidates by fellowship programs." 65% of PDs agreed that a barrier to recruitment is "not enough minorities applying to our program," while 65% disagreed that "implicit bias from faculty" could be a barrier.

Conclusions:

Less than 10% of residents identified as UiM, so capturing their perspectives is quite challenging. Efforts to increase the number of UiM residents may improve representation in OFs and allow further investigation of barriers.

How do Ophthalmology Residency Program Websites Feature Diversity and Inclusion?

SAMUEL COHEN, BS*; SUZANN PERSHING, MD

Background:

Diversity in ophthalmology academic departments remains limited. Improvement requires recruiting a pipeline of diverse trainees. Residency program websites represent a potential recruitment tool to showcase a program's diversity and inclusion efforts.

Purpose:

We assessed how ophthalmology residency program websites demonstrate a commitment to diversity and inclusion.

Methods:

Online search of 116 ophthalmology residency program websites for the presence of 12 diversity and inclusion elements based on Accreditation Council for Graduate Medical Education guidelines.

Results:

Ophthalmology residency program websites included a mean of 4.4 ± 2.1 diversity elements (range 1-9). Frequently featured diversity elements included resident photos (85.3%), faculty photos (78.4%), and community resources (64.3%). Extended faculty biographies (2.6%), mental health resources (9.5%), and diversity council information (11.2%) were less commonly showcased (Figure 1). Top-ranked (7.6 ± 1.8, $p < 0.0001$) and university-based program (4.7 ± 2.8, $p = 0.0039$) websites displayed more diversity elements than lower-ranked (4.1 ± 1.8) and community-based programs (2.8 ± 1.7).

Conclusions:

Most ophthalmology residency program websites featured less than half of the diversity and inclusion elements studied, suggesting room for improvement. By drawing attention to program diversity and inclusion efforts, websites offer a potential tool for residency programs to consider in their recruitment efforts for diverse trainees.

Ophthalminute - Medical Education for the Social Media World

PHILIP DOCKERY, MD, MPH*; SAMANTHA S. IP, BSE; ERIK M. MASSENZIO, MD

Background:

Social media engagement in the medical community - particularly among trainees - has greatly increased over the last few years.

Purpose:

To demonstrate the implementation and acceptance of a series of brief ophthalmology medical education videos on social media.

Methods:

Landmark papers from clinical trials in ophthalmology and corresponding literature were used to design a series of one-minute videos, which were uploaded to Twitter, Instagram, and YouTube. Acceptance was measured by the number of followers, views, and engagement on social media.

Results:

Ten videos were released from June 30 - September 1, 2021. Ophthalminute gained 1080 followers or subscribers and received 19,655 total views among the three social media outlets. The positive review rate on YouTube is 100%.

Conclusions:

Brief video-based medical education on social media may provide trainees with opportunities to learn fundamentals of ophthalmology while simultaneously engaging in leisure activity.

Significance of Female Faculty and Departmental Leadership on the Gender Balance of Ophthalmology Residents

TOVA GOLDSTEIN, MD*; SAMANTHA LESSEN, BA; JEE-YOUNG MOON, PHD; IRENA TSUI, MD; JAMIE B. ROSENBERG, MD

Background:

The rate of women in ophthalmology residency programs continues to lag behind the rate of women in medical school.

Purpose:

To determine the association between rates of female residents in ophthalmology programs and departmental gender composition.

Methods:

Data was collected from public online resources. Departments with residency programs were included for analysis if they were ACGME accredited and available through the SF Match for the 2020-2021 application cycle. Binomial regression was fitted to identify factors associated with the female faculty and resident proportions.

Results:

In 117 total programs, 16.7% of chairs and 37.7% of PDs were female. There were more female residents at programs with female PDs (p=0.02), with more female faculty (p<0.001), and at larger departments (p=0.001) and residency programs (p=0.04). In multi-variate analysis, more female faculty members increased the odds of having more female residents (p<0.001). Chair gender did not correlate with the proportion of female faculty or residents.

Conclusions:

Programs with more female faculty members had more female residents. Further research is required to explore the reasons for this finding and identify effective ways to address gender disparity.

Trends in Racial and Ethnic Diversity of U.S. Residency Programs from 2011-2020

LAUREN HUCKO, MD, MPH*; HASENIN AL-KHERSAN, MD; JOHANNY LOPEZ DOMINGUEZ; KARA MARIE CAVUOTO, MD; JAYANTH SRIDHAR, MD

Background:

The benefits of a diverse healthcare workforce are well-documented. Historically, the physician workforce has not reflected the U.S. populations' demographics.

Purpose:

To analyze trends in race/ethnicity among U.S. residency programs.

Methods:

Demographic data was extracted from the American College of Graduate Medical Education (ACGME). Representation quotients (RQ) (the ratio of a subgroup of residents relative to the percentage of the same subgroup in the U.S. population) were calculated for race/ethnicity. RQ trends amongst residency programs were analyzed.

Results:

API residents were overrepresented in surgical and nonsurgical specialties. White residents and residents identifying as underrepresented minorities (URM)-black/African American, Hispanic or Latinx, and Native American or Alaskan Native-were underrepresented in surgical and nonsurgical specialties. RQ for URM residents decreased in surgical specialties, with a notable decrease for Black residents. RQ for URM residents increased most for Thoracic and Plastic surgery and decreased most for Integrated Plastics and OB/GYN. Of nonsurgical specialties, the RQ for URM increased most for Nuclear Medicine and Radiology, and decreased most for Medical Genetics and PM&R.

Conclusions:

Racial/ethnic representation in residency programs lags behind the U.S. population. Significant work remains to address barriers to recruiting/retaining URM residents, improve healthcare disparities, and combat medical racism.

The Triple Threat: Creating a Bootcamp for Early Career Educators to Promote Excellence and Innovation in Clinical, Surgical, and Academic Teaching

YEKATERINA JOLTIKOV, MD*; EMILY COLE, MD; POOJA BHAT, MD; R.V. PAUL CHAN, MD, MSC, MBA; DEEPAK EDWARD, MD; PETER W. MACINTOSH, MD

Background:

Clinicians entering the early years of practice in an academic institution face the simultaneous challenge of learning independent clinical and surgical practice while educating trainees in these settings. While there are current collaborative groups for young ophthalmologists such as the AAO Young Ophthalmologists Committee, there are few formal training opportunities on the science of teaching and learning and how to implement effective teaching strategies for resident physicians.

Purpose:

To describe a proposed educational collaboration aimed at sharing evidence-based best practices in clinical and surgical adult education, and provide a forum for structured discussions regarding successes and challenges of implementing these practices. A secondary aim is to provide an overview of research methods that are most effective for systematically evaluating educational interventions.

Methods:

Evaluate the current literature in clinical and surgical educational interventions in ophthalmology as a background to support early career educators in designing various curricula for their trainees.

Results:

The structure of the proposed curriculum is designed to focus in three areas: a) clinical education b) surgical education c) research methods in educational interventions. In each area, multidisciplinary experts in the areas of educational theory, psychology, and research methods will lead didactic sessions and breakout sessions with structured discussion aimed at promoting critical self-reflection and sharing current practices between institutions.

Conclusions:

The proposed educational intervention provides a forum for ongoing collaboration between early career educators to support excellence in teaching and learning in ophthalmology.

Resident Surgeons' Perspectives on Intraoperative Gray Area Surgical Complications of Cataract Surgery

ASHER KHAN, BS*; KAMRAN RIAZ, MD; CAROLYN KLOEK, MD; FASIKA WORETA, MD, MPH

Background:

Surgical complications during cataract surgery occur among novice and experienced surgeons alike. Certain complications, such as a posterior capsule tear requiring vitrectomy or an incorrect intraocular lens, are nearly universally agreed upon by ophthalmic surgeons as intraoperative complications requiring disclosure both in the operative report and to the patient. However, there are a subset of "gray area" surgical complications (GASCs) that may not be viewed by all surgeons as an intraoperative complication. Therefore, surgeons' attitudes and practice patterns in regards to both patient disclosure and appropriate documentation may vary when such intraoperative complications occur, especially if a surgeon believes that a given GASC is unlikely to cause serious long-term injury to the patient. In order to better understand cataract surgeons' views on GASCs, we developed 11 potential GASC scenarios in a survey questionnaire administered to attending and resident ophthalmologists across the nation.

Purpose:

As there is a paucity of studies in the ophthalmic literature regarding intraoperative GASCs, this survey study sought to assess surgeon preferences and highlight differences in likelihood of surgeons to perceive, communicate, and document GASCs. We further wished to analyze response differences based on gender, practice setting and surgeon experience. Elucidating reasons for reporting pattern differences may directly affect patient satisfaction, medico-legal risks, and surgeon-experienced psychological trauma.

Methods:

Demographic data gathered from respondents included gender, current level of surgical experience, and practice setting. As intraoperative GASCs related to cataract surgery have not been fully described in the literature, 11 potential GASC scenarios were developed and approved by the AUPO data utilization committee. These were further divided into 3 ocular-surface GASCs and 8 intraocular GASCs. An online survey was sent to practicing and resident surgeons. Using a Likert scale, respondents scaled their perception of likelihood that a GASC could lead to post-operative complications for the patient, as well as their viewpoints regarding a duty towards patient disclosure and documentation in the operative report. Respondents also scaled their likelihood of agreement with a series of statements assessing baseline anxiety levels and perspectives regarding disclosure. Statistical testing for non-parametric data was performed. Aggregate scores were compared using Wilcoxon rank-sum tests. Responses for unordered predictors (gender: male vs. female, and practice location: academic vs. private) were analyzed using Kruskal-Wallis ANOVA on ranks. Analysis by ordered predictors (level of experience) was conducted via Spearman rank correlation coefficients.

Results:

A total of 389 responses were analyzed based on gender, practice setting and surgical experience. Female surgeons were more likely than male surgeons to disclose GASCs to their patients (3.09 ± 0.62 vs. 2.87 ± 0.65, p = 0.0008) and experience psychological anxiety in regards to patient outcomes. There were no gender differences in regards to perception that GASCs would result vision-limiting outcomes or disclosure obligation in the operative report.

Both early- and late-stage residents were more likely to believe that GASCs could lead to vision-limiting outcomes as compared to attending surgeons (2.60 ± 0.53 vs. 2.38 ± 0.37 vs. 2.21 ± 0.38 vs. 2.19 ± 0.41, p = 0.0004) and experience psychological anxiety in regards to patient outcomes. There was no experience level difference in surgeons' perspectives regarding likelihood of patient disclosure or disclosure in the operative report.

Surgeons at academic centers were more likely than community-based surgeons to disclose GASCs in the operative report (3.53 ± 0.76 vs. 2.83 ± 0.87, p < 0.0001) and experience psychological anxiety in regards to patient outcomes. There were no practice setting difference in surgeons' perspectives regarding likelihood of complications and likelihood of patient disclosure.

Conclusions:

Our findings suggest that significant differences based on gender, practice location and surgical experience exist in regards to intraoperative GASCs. As this was the first study of its kind, additional studies are needed to further explore these differences as well as potentially develop curricula and mentorship in training to better prepare residents to deal with GASCs, including obligation towards patient disclosure, duty towards appropriate medical record documentation and reducing postoperative surgeon-experienced anxiety.

Health Disparity Curricula for Ophthalmology Residents: Current Landscape, Barriers, and Needs

JUSTIN ANTHONY LOPEZ, BS*; TESSNIM AHMAD, MD; JOHSIAS MARU, BA; NICOLE CARVAJAL, BS, MS; SEANNA GROB, MD, MS; ALEJANDRA DE ALBA CAMPOMANES, MD, MPH; SRIRANJANI PADMANABHAN, MD; NEETI PARIKH, MD

Background:

Social determinants of health play an important role in eyecare. Yet, there is no standardized curriculum for ophthalmology residents to identify and address health disparities.

Purpose:

To characterize health disparity curricula in ophthalmology residency programs and to understand the perceptions and needs of program directors and residents.

Methods:

A close-ended survey with comments was distributed to ACGME-accredited ophthalmology residency program directors and residents.

Results:

26 program directors and 76 residents responded. Most program directors (65%) stated their program had a formal curriculum, compared to less than half (48%) of residents. Most residents (75%) were confident recognizing health disparities, though less than two-thirds were confident managing their care. Residents were most concerned with lack of access to resources to help patients. Only 42% felt the amount of time dedicated to health disparities education was adequate. The top barrier to curriculum development identified by program directors was trained faculty to teach. On the other hand, time in the curriculum was a major barrier identified by residents.

Conclusions:

Addressing social determinants of health is key to reaching vision health equity, yet current ophthalmology residents feel they lack sufficient training to help patients facing disparities. National guidance on a curriculum may be warranted.

Integrating Internship into Ophthalmology Residency: Assessment of a Structured Microsurgical Curriculum and National Survey

HAMIDAH MAHMUD, BA, MPHIL*; TESSNIM AHMAD, MD; NEETI PARIKH, MD; NEEL PASRICHA, MD; SARAS RAMANATHAN, MD

Background:

All US ophthalmology residency programs will transition to a joint/integrated internship year by 2023.

Purpose:

To describe ophthalmology residency programs' microsurgical curricula for interns and to evaluate the efficacy of a single institution's curriculum.

Methods:

In this mixed-methods survey and prospective trial, all US ophthalmology residency programs were surveyed regarding their intern surgical curricula. In addition, PGY-1 residents at the study institution completed a suturing task before and after completing an 8-session microsurgical curriculum. The task was graded on speed and quality. PGY-1 performance was compared to PGY-2 residents who had not completed the curriculum.

Results:

The survey response rate was 24 percent. Most described low emphasis on microsurgical training for interns and a need for increased direction. All programs had a microsurgical wet lab but lacked microsurgical curricula for interns. Interns showed significant improvement in time to task completion (P=0.001, 95% CI: [1.16, 1.93]) and surgical performance (P= 0.04, [-4.61, -0.20]) after completing the curriculum. Compared to PGY2s, the PGY1s were faster (P= 0.61, [-0.74, 0.47]) and performed better (P = 0.51, [-0.75, 1.35]), but these differences were not statistically significant.

Conclusions:

A structured microsurgical curriculum significantly improved PGY-1 microsurgical skills. The intern year provides a valuable opportunity to begin ophthalmology surgical training.

Possible Impediments to Clinic Follow-Up for Hospital-Based Ophthalmology Consults

MAREZ MEGALLA, MD*; LUKE BARNARD, MD; JACOB HENG, MD, PHD; ANDREW JIN, MD; JI HAE LEE, MD; YAN ZHU, MD; JESSICA CHOW, MD

Background:

Ophthalmology residents experience a variety of consults to evaluate; however, only a certain percentage of these patients follow-up at their recommended time.

Purpose:

To determine factors precluding patients from completing their follow-up outpatient ophthalmology clinic appointments and determine whether scheduled follow-up, even while inpatient, helps decrease no-show rates over the 2020-2021 academic year.

Methods:

Ophthalmology emergency room and inpatient consults at different time points throughout the 2020-2021 academic year were assessed for baseline evaluation of impediments. Official follow-up times scheduled even while the patients remain inpatient were used to determine if no-show rates decreased.

Results:

Rate of follow-up did not change regardless of any of the factors assessed age, sex, race, insurance, emergency room vs inpatient setting, consult diagnosis, trauma sequelae, logistical scheduling, time of year. Interestingly, only the consult diagnosis was found to be of borderline significance.

Conclusions:

An interplay of numerous factors preventing clinic follow-up are likely at play. It would be interesting to see if the pandemic affected these rates and whether these results are reproducible in other medical/surgical subspecialties.

Using a Facebook Virtual Examination Room to Facilitate Engagement Among ROP Trainees

PREEYA MEHTA, BA*; JUAN ESPINOZA, MD; SAB SIKDER, BA; EESHIKA PAREKH; TAMARA GALOYAN, PHD

Background:

Retinopathy of prematurity (ROP) is a vaso-proliferative retinal disease in premature infants and a leading cause of worldwide childhood blindness with increasing incidence in low and middle income countries. Social media platforms provide a promising solution to enable interactive medical education across geographic and pragmatic barriers.

Purpose:

To examine engagement of pediatric ophthalmology trainees using a ROP Facebook Virtual Examination Room (VER).

Methods:

As part of an existing international ROP training collaboration, a closed Facebook group was created to discuss cases with trainees. A concurrent mixed methods approach was taken to collect and analyze data from trainees' comments and activities within VER. Quantitative data was analyzed for descriptive statistics on group utilization, participant activity, and clinical metrics. Qualitative data was analyzed by conducting thematic analysis involving initial and pattern coding.

Results:

Ten participants (7 trainees and 3 preceptors) interacted in the Facebook group across 154 cases, with 219 posts, 418 comments, and 217 likes. Qualitative analysis of posts found that the most common themes of discussion were clinical management, dilemma resolution, knowledge growth, and gratitude.

Conclusions:

Social media platforms can be a useful adjunct for ROP training by providing discussion opportunities with specialists while encouraging trainee involvement and learning.

Delivering Bad News in Ophthalmology

MICHAEL MIGLIORI, MD, FACS*; REBECCA MACDONELL-YILMAZ, MD, MPH, FAAP; TAYGAN YILMAZ, MPH

Background:

Procedural learning permeates specialties such as ophthalmology. Sharing difficult news is another common task for ophthalmologists and a required competency in the Ophthalmology Milestone Project. However, no method has been developed to teach this skill.

Purpose:

Studies demonstrate that patients prefer honest information about difficult diagnoses and that clear, empathetic communication can help patients understand and adjust to a "new normal." A patient-centered approach, with attention to the timing and method.

Methods:

We used a narrative medicine approach to develop a new model of delivering difficult news.

Results:

With the physician as storyteller, the delivery of difficult news is framed as analogous to the stages storytelling. Each step of the classic narrative arc (Setting & Characters, Tension & Conflict, Climax, Resolution, and New Normal) has a corollary: Set the Stage, Summarize the Situation, Deliver the Headline, Respond to Emotion, and Negotiate a Path Forward. Each step plays a critical role and is linked to the preceding and subsequent steps.

Conclusions:

We present a framework for delivering bad news in ophthalmology and examples of helpful phrases for delivering a broad range of diagnoses and pieces of difficult news.

Optimizing Refractive Outcomes in Resident Cataract Surgeries

MUBARIK MOHAMED, MD*; ARIANA LEVIN, MD; JEFF PETTEY, MD

Background:

A significant proportion of primary resident cases are done at Veterans Affairs Hospitals (VAH), including thousands of cataract surgeries annually. For example, ophthalmology residents at the University of Utah perform >400 cataract surgeries at the Salt Lake City VAH every year. In addition to excellent anatomic outcomes with low complication rates, refractive outcomes should also be optimized in resident surgery.

Purpose:

We aim to report refractive outcomes in primary resident surgeries. We also aim to report factors associated with less-than-ideal refractive outcomes including residual astigmatism and refractive surprise.

Methods:

Retrospective chart review with multivariate analysis.

Results:

We analyzed 104 eyes that underwent cataract surgery by early residents (<100 primary cases). Monofocal and toric intraocular lenses (IOL) were implanted. Cases were stratified by ocular comorbidities. We report postoperative visual acuity and astigmatism, as well as associations with preoperative refraction, optical biometry, and topography including higher order aberrations and spherical aberration. Accuracy of the Barrett, Holladay 1, and Holladay 2 formulae are also compared.

Conclusions:

The VAH is an ideal cohort for studies that aim to improve resident refractive outcomes, because IOL options are standardized across training programs. An increased understanding of associations of preoperative variables with postoperative outcomes will improve outcomes in resident cataract surgery.

All Fun and Games? Experiences Pre- and Post-Implementation of a Flipped Classroom Model

RACHEL PATEL, MD*; KATHERINE HU, MD; JEFF PETTEY, MD; RACHEL SIMPSON, MD; SRAVANTHI VEGUNTA, MD

Background:

Mutual resident and faculty dissatisfaction with traditional didactic lectures prompted development of an interactive curriculum model for ophthalmology resident education.

Purpose:

To evaluate resident and faculty satisfaction, experience, and perceived efficacy of prior traditional didactic lectures versus newly implemented flipped classroom sessions.

Methods:

A reimagined flipped classroom curriculum rooted in pre-work assignments and interactive in-person learning activities was designed and implemented in July 2020. Faculty and residents were surveyed six months prior to and one year following implementation.

Results:

Twenty-four faculty and 12 residents were surveyed. Faculty perceived that residents were better prepared for and participated more in flipped classroom sessions. Residents reported preparing on average 1.5 to 2 hours for each didactic session, compared to under 30 minutes for previous traditional lectures. Yearly attendance rates increased from 61.7% to 84.2%. Faculty and residents agreed that quizzes and case-based learning were the most effective methods of knowledge retention; residents also found oral boards style questioning highly useful. Most faculty and all residents reported greater satisfaction with the flipped classroom model and believed it to be a more effective learning experience.

Conclusions:

A flipped classroom curriculum can improve both faculty and resident satisfaction of the ophthalmology education experience and increase learning efficacy.

Interview Selection Process for Ophthalmology Residency Interviews

ALEX PHAM, BS*; MYA ABOUSY, BA; MICHAEL J. FLIOTSOS, MD; JOSEPH COFRANCESCO JR., MD, MPH; FASIKA WORETA, MD, MPH

Background:

Although applicant selection criteria are well described, the methods programs use to determine which applicants are granted interviews are not.

Purpose:

To identify various methods ophthalmology residency programs use to determine which applicants receive an interview invitation.

Methods:

A validated survey was distributed to all ophthalmology residency programs through the Association of University Professors of Ophthalmology regarding methods to screen residency applications.

Results:

The response rate was 42% (46/110). The average number of applications received was 486.52 ± 98.07. Most programs (78%) have multiple independent reviewers for each application (mean number of reviewers 2.8; range: 1-11). A single faculty member reviews an average of 83.52 (range: 1-500) applications. Reviewers in 42.86% of programs utilize a standardized rubric. Following initial screening, the program director most frequently makes the final decision (55.10%). At least 20% of programs exclude international medical graduates and D.O applicants. Most programs (83%) always grant interviews to students at their home institution.

Conclusions:

Given the large number of applications that residency programs must review, exploring best-practices for interview selection may be beneficial for program directors.

Using Virtual Reality (VR) to Optimize the Asynchronous PGY1 Curriculum

JHANSI RAJU, MD*

Background:

Integrating the PGY1 year provides an opportunity to build a foundation of knowledge and skills prior to full-time immersion into busy, fast-paced ophthalmology clinics. However, asynchronous PGY1 rotations require creative solutions for offering equal and meaningful educational opportunities. A potential option is VR based simulation, a proven method in medical training.

Purpose:

To create a foundational curriculum for knowledge and introductory skills that could be efficiently and independently completed by PGY1 residents as they rotate through ophthalmology asynchronously throughout the year.

Methods:

Time for simulation activities was built into the PGY1 schedule. We utilized virtual reality for self-directed learning of anatomy and exam skills using virtual patients. Residents were surveyed regarding their experience.

Results:

Benefits described by the residents included the opportunity to practice exam skills without burdening live patients and an enhanced understanding of anatomy using the immersive anatomical eye model.

Conclusions:

Incorporating simulation into the PGY1 curriculum offers an opportunity for deliberate practice of exam skills and provides a conceptual framework for understanding anatomy. The self-directed nature of the experience standardizes the educational opportunities in the setting of asynchronous ophthalmology rotations for the PGY1 residents.

Standardization of On-Call Documentation

HETAL RAY, MD*; NICK APOSTOPOULUS, MD; GREG FLINEY, MD; WENDY LINDERMAN, MD; TAHREEM MIR, MD

Background:

Computerized note templates are commonly used to provide recommendations via electronic medical record (EMR). They may serve to standardize patient care, increase documentation speed and be used as a resident education tool.

Purpose:

Our purpose is to create a standardized catalog of templates for common ophthalmic emergencies to improve patient care, decrease EMR fatigue and to be used as a resident teaching tool.

Methods:

A standardized catalog of 145 common emergencies was created based on the Wills Eye Manual, 7th edition. The catalog was then made available to PGY2 and PGY4 residents from a single institution for 4 months. Participants were surveyed before and after being given access. The primary outcome was improvement in patient care. Secondary outcomes included frequency of template use and resident comfort and learning.

Results:

After the introduction of computerized note templates, their use doubled. There was an improvement in ability to differentiate relevant data, formulate a differential diagnosis and effectively communicate with the primary team ($p<0.05$). There was also an increased comfort with writing notes ($p<0.05$).

Conclusions:

With the introduction of computerized ophthalmic note templates, residents felt more comfortable writing notes and perceived to provide improved patient care.

Quality Improvement in Microsurgical Technique: A Supervised Wet-Lab Curriculum for First-Year Ophthalmology Residents

FAREED RIFAI, MD*; CRYSTAL LE, MD; TAJ-ADDIN NASSER, MD; PEGGY GRAMATES, MD; ZE ZHANG, MD

Background:

Although many resources are available to trainees for early microsurgical technique development, there is minimal direct supervision by more experienced practitioners and, often, no structured curriculum when utilizing such resources. In a program with high clinical, surgical, and call volume, protected wet lab time may not always be feasible. We hypothesize that a structured, directly supervised model, rather than a fully independent study model, will yield benefits in terms of skills evaluation, technique development, trainee satisfaction, and faculty perceptions of early residents' competencies.

Purpose:

Design a curriculum with 1:1 supervision by upper-level residents, fellows, and faculty, that accomplishes the following:

1.   Evaluates PGY-2 resident concerns and assesses needs regarding surgical skill preparation

2.   Improves skill and comfort with mic

Methods:

A quiz assessing cataract surgery steps, instrument identification, corneal/scleral incisions, foot pedal operation, and suturing techniques was administered to the residents before and after the curriculum. Surveys assessing comfort on a 1-10 scale were sent to residents and faculty before and after the curriculum. Multiple sessions with 1:1 supervision and observation were held throughout the first rotations of the year, instructing the residents on the above.

Skills were demonstrated by the fellow or faculty, then practiced by the first-year resident while observed by an upper-level resident. Towards the end of the rotation, they were re-evaluated by the same initial instructor. First year residents were assigned to one fellow or faculty per rotation, switching to a different instructor with each subsequent rotation.

Results:

There was significant variability in faculty response to comfort with early involvement of residents in surgery, as well as the skills that should be emphasized for first years. After the curriculum, first year performance on the quiz improved considerably and comfort improved as well. Residents consistently gave feedback that the 1:1 supervision made the curriculum more useful than practicing alone.

Conclusions:

In programs where protected wet lab time may not be feasible and there is ample opportunity for early involvement in surgery, residents need a structured and efficient curriculum with direct supervision to learn microsurgical technique. This curriculum proposes a way to improve resident satisfaction and comfort, as well as reassure faculty that residents are practicing the necessary skills to succeed in the operating room.

Factors Associated with Retention of Ophthalmology Trainees at Academic Medical Centers

EMANUELLE RIZK, BA*; JIANGXIA WANG; XIYU ZHAO; BERUK E. METIKU; KATIE CHO; PRANAV SAMINENI; JAYANTH SRIDHAR, MD; FASIKA WORETA, MD, MPH

Background:

In certain specialties, physicians' training institution has been shown to influence their future practice location.

Purpose:

The purpose of our study was to assess retention rates of ophthalmology faculty at academic medical centers after residency or fellowship training and to assess factors associated with retention.

Methods:

We conducted a cross-sectional analysis of 1,246 clinical ophthalmology faculty at the 13 top-ranked ophthalmology programs in the US. Internal hires were defined as faculty who had completed residency and/or fellowship training at their current institution. Statistical analyses were conducted using t-tests or Mann Whitney tests, chi-squared or Fisher's exact tests, and multivariable logistic regression.

Results:

The median percentage of internal hires across institutions was 53.8% (range: 20.3%-73.0%). Internal hires were more frequently fellowship-trained (84.7% vs. 76.3%; p<0.001) and had a greater median number of publications (7 vs. 3; p<0.001). In multivariable analysis, recent graduates (OR=.98, CI=.97-.99, p<0.001) and faculty with NIH funding other than an R01 (reference: no funding, OR=1.71, CI 1.07-2.75, p=0.026) were more likely to be internal hires.

Conclusions:

Training institution has a sizable impact on institution of practice. These results may be beneficial for trainees to take into consideration when selecting training programs.

Measuring Job Satisfaction, Well-being, and Burnout Among Ophthalmology Educators

KARISSA SEALEY*; STEPHEN A. BLATT, MD; GARY L. LEGAULT, MD; KYLE J. GODFREY, MD; MISHA SYED, MD, MEHP

Background:

Metrics evaluating job satisfaction, wellness, and burnout among academic physicians in leadership positions have been reported for multiple specialties, however, these data have not been reported for ophthalmology educators.

Purpose:

To assess the prevalence of burnout among ophthalmology educators and identify opportunities to improve well-being in this population.

Methods:

An IRB-exempt survey addressing the domains of the Maslach Burnout Inventory was sent to residency Program Directors (PD) and Associate Program Directors (APD) in the Association of University Professors of Ophthalmology (AUPO).

Results:

Surveys were sent to 175 members. The response rate was 38.9% and completion rate was 34.3%. The 68 participants were 78% PDs and 22% APDs. 48.6% have held their position for 4 years or less. Respondents 1) never or 2) less than a few times per year considered residents as impersonal objects (95.2%), became more callous towards people (90.3%), or became emotionally hardened (80.6%). Approximately 65% of educators never or rarely considered leaving their position last year. For improving wellness within AUPO, the strongest interest was for small group mentoring sessions on wellness (85%), and webinars on wellness topics (70%).

Conclusions:

The prevalence of burnout symptoms among ophthalmology educators compares favorably to educators across other specialties.

A Deep Dive into Ophthalmology Residency Milestones

ERICA SMITH, MD*; ROSHNI VASAIWALA, MD; ANURADHA KHANNA, MD

Background:

Understanding the expectations and guidelines of the ACGME is key to the success of an ophthalmology residency. It is critical that both faculty and residents understand the milestones and their significance.

Purpose:

To create a comprehensive yet easy-to-understand roadmap of resident progression based on the ACGME milestones.

Methods:

Using graphics, we created flowcharts for visual mapping of each milestone. These milestones were then presented in a powerpoint presentation to faculty and residents in a 2 hour interactive session.

Results:

The visual graphics proved valuable for enhancement of curriculum mapping to enable residents to achieve milestones over the course of their residency. This process also increased the efficiency of the Clinical Competency Committee meetings.

Conclusions:

Visual mapping of the milestones allowed for clear understanding of the learning progression expected of residents. An added benefit of this process was improved resident satisfaction with faculty feedback on their performance and progression toward achieving milestones.

Use of Porcine Exenteration Specimens to Simulate Eyelid Trauma and Laceration Repair for Ophthalmology Residents

ADANNA UDEH, MD*; ANN Q. TRAN, MD; VICTORIA S. NORTH, MD; IRINA BELINSKY, MD; ELEANORE KIM, MD

Background:

Survey studies have shown that ophthalmology residents may lack confidence in performing urgent surgical assessments and procedures, which may affect patient outcomes, especially since such events may happen outside regular office hours with the junior resident taking primary call. Cadaver-based simulation models offer surgical trainees an anatomically realistic method to prepare for such ophthalmic procedures, however, their use is limited by availability and cost.

Purpose:

In this study, we discuss the use of porcine exenteration specimens as an effective and readily available model for ophthalmology surgical training in oculoplastic procedures.

Methods:

A one-day wet lab course utilizing porcine exenteration specimens was designed for ophthalmology residents to practice different approaches to repair eyelid trauma. Procedures selected included canthotomy/cantholysis, eyelid margin laceration repair, and probing of the lacrimal system. Residents completed pre and post-course surveys assessing their confidence and familiarity with the aforementioned procedures. Survey responses rated resident comfort from 1 (Minimal knowledge or experience with steps) to 5 (Very comfortable, would be able to perform with minimal or no supervision).

Results:

A total of 5 residents attended, with 4 completing both the pre and post-surveys. The residents' surgical confidence for marginal laceration repair, canalicular evaluation, and canthotomy/cantholysis were 2.25, 2.5, and 3.25, respectively. Following the wet lab session, the resident confidence score increased by 30 - 49%.

Conclusions:

Formal wet lab-based surgical simulations enable residents in training to prepare for urgent ophthalmic procedures in a controlled environment. Training with porcine orbital exenteration specimens provides a hands-on educational approach to surgical practice. Simulated practice increases confidence and comfort with procedures encountered on-call and enhances surgical competency and skills needed during residency.

Outcomes of a Formal Ophthalmology Residency Mentorship Program

SEN YANG, BS*; SARAH GLASS, MD; JOHN CLEMENTS, MD; LEAH REZNICK, MD; AMBAR FARIDI, MD

Background:

Effective mentorship of residents improves wellness and enhances career guidance. Mentorship program success is not easily quantifiable, and there is a scarcity of literature detailing mentorship experiences in ophthalmology training.

Purpose:

To identify strengths and weaknesses of our Ophthalmology Residency Mentorship Program and propose strategies for improvement.

Methods:

Resident mentees and faculty mentors from 2016 to 2021 were surveyed.

Results:

Of 65 participants, 82% preferred in-person meetings and met 2-3 times (44%) to 4-6 times (38.5%) annually at 15 minutes to 1-hour (48%) or 1-2 hours (42%) duration. 21% of mentees and 38% of mentors believed they had the skills to participate in their roles. 14% of mentees and 38% of mentors prioritized the relationship. A strong correlation existed between participants who prioritized the relationship and those who acknowledged it as valuable (P<0.01). Mentees valued career advising and wellness over academic/research support.

Conclusions:

Our program's weaknesses included ineffective communication between participants and inadequate preparation for and lack of prioritization of their roles. We propose improvement strategies, including holding mentorship workshops with tips and tools, emphasizing accountability, and implementing a matching algorithm to customize participants' experiences.

Don't Reinvent the Wheel

Medical Ethics in Ophthalmology Residency Training: A Pilot Curriculum

NITIN CHOPRA, MD, MBA*; JACOB M. APPEL, MD, JD, MPH; HARSHA S. REDDY, MD; NISHA CHADHA, MD

Background:

Navigating ethical dilemmas is an important skill for physicians. However, limited time is dedicated to medical ethics (ME) education in residency. While medical students may gain some ME exposure, it is often general and not subspecialty specific.

Purpose:

To develop, pilot, and evaluate the impact of a novel, ophthalmology-specific (OS) ME curriculum for ophthalmology residents (OR).

Methods:

OS ME cases were created in collaboration with a practicing medical ethicist (JA). OR (PGY-1 to 4) at our institution participated in four, 1-hour ME sessions facilitated by JA. Each session consisted of a lecture on a core ME topic, followed by a discussion of ophthalmology cases specific to that topic. An anonymous 10-item pre- and post-test of OS situational judgement questions was used to assess knowledge gains. Pre and post surveys were administered to assess course reception.

Results:

52% (n=17/33) of OR participated in all sessions and completed all surveys. 73% of residents improved on the post-test, with an average improvement of 24%. All post-survey queries received an average score of >4/5.

Conclusions:

ME education, and in particular subspecialty-specific ME is important in GME. Our novel ME curriculum for OR improved situational judgement and was well received.

Camera-augmented Binocular Indirect Ophthalmoscopy for Resident Education

RYAN DUONG, BS*; MICHAEL CUSICK, MD, MHSA; NAVEEN AMBATI, BS; ARJUN DIRGHANGI, MD, MBA

Background:

Binocular indirect ophthalmoscopy is an indispensable fundoscopy tool that can be challenging for junior residents to master. The Scanoptix device is a novel mountable camera device for augmented indirect ophthalmoscopy that allows real-time telemedicine redisplay on a second monitor, comparison, documentation, and analysis of images and video. This provides an opportunity to give real-time feedback to trainees.

Purpose:

To evaluate the utility of the Scanoptix device in teaching fundoscopy techniques in an academic ophthalmology teaching environment.

Methods:

Faculty were surveyed regarding their experience using the product to teach 11 trainees.

Results:

Specific utilizations included training and assessing junior residents' ability to perform indirect ophthalmoscopy and scleral depression to view peripheral pathology. Asynchronous images were also used to identify clinically significant pathology previously missed by residents. Some challenges included a ~45-foot wireless proximity constraint in realtime video mode between the device and monitor. However, images can be reviewed remotely in any web browser using a secure store-and-forward software application.

Conclusions:

The Scanoptix camera is a promising new augmentation to the binocular indirect ophthalmoscope permitting real-time capture and redisplay of photos and videos to teach and assess fundoscopy exam skills in trainees.

Immersive Anatomical Virtual Reality Simulation Enhances MIGS Wet Lab Experience

SARAH GRIFFIN, MD*; SHEENA KHANNA, MD; ALEXIS STEFANIAK, BS; ROSHNI VASAIWALA, MD; MEENAKSHI CHAKU, MD

Background:

Minimally invasive glaucoma surgeries (MIGS) have become a mainstay in the management of glaucoma leading to an increased interest in MIGS training during residency. Thorough understanding of the complex anatomy of the iridocorneal angle is an important step in the learning curve of performing MIGS. Simulated surgical training focused on surgical steps has proven to be efficacious. Simulation based anatomical exploration can help augment this training.

Purpose:

To incorporate an immersive hands-on anatomical review of the iridocorneal angle within a MIGS wet lab to supplement surgical training and increase resident confidence in MIGS.

Methods:

Commercially available Oculus VR headsets and OcuSim software were used to teach 20 residents immediately before the MIGS wet lab. Virtual reality provided complete immersion into the anatomy of the angle.

Results:

The majority of residents reported that virtual reality simulation of the iridocorneal angle enhanced their learning at the MIGS wet lab.

Conclusions:

Virtual reality can be used to better understand complex anatomy and augment learning during surgical wet labs. Ultimately, this can increase the number of future Ophthalmologists who are proficient in and can offer MIGS to a growing number of glaucoma patients.

Implementing the Night Float System as a Model for Ophthalmology Resident Call

ISHA MEHTA, DO*; JULES WINOKUR, MD

Summary:

During the height of COVID-19, our residents were divided into subgroups to prevent crossover in the event of an outbreak. Part of this reallocation included a resident who only had overnight responsibilities. We discovered that assigning a resident to night float significantly alleviated the burden of call on the resident body as a whole. Our program maintained the night float system even after the Covid-19 restrictions, and is now a part of the first and second year call experience. The first year residents take 8 weeks of night float and the second years take 4 weeks over the course of the year. This is complemented by our daytime consult resident, a second year rotation that was already in place.

Since implementation, we have noticed several improvements. The quality of inpatient sign-out has significantly improved as the same residents are monitoring patients throughout the week. There are no concerns over duty hour violations as the residents are on shifts. In addition, the residents have provided positive feedback about their well-being as they are no longer responsible for taking care of clinic patients after a long night, and they have time during the day to care for themselves.

Ophthalmology Residents' Attitudes Toward Stress and Wellness when Fulfilling On-call Responsibilities

VISH REDDY, MD*; STEPHEN BLATT, MD

Background:

Trainee wellness and burnout continue to emerge as an ACGME area of focus for resident training. Maslach, et al. define burnout syndrome as a depleted state characterized by emotional exhaustion, depersonalization, and a decreased sense of accomplishment. Ophthalmology residency has its own unique triggers that can lead to burnout, the most stressful of which taking weekend call.

Purpose:

Through knowledge-transfer exercises that impart specific stress-reduction strategies such as breath-control exercises, expressing gratitude, and identifying positive affirmations, we hope to modify Ophthalmology residents' attitudes toward stress and wellness.

Methods:

This prospective study was reviewed by our institutional IRB and awarded an exempt status. The aforementioned knowledge transfer exercises were reviewed with first-year Ophthalmology residents through online lectures and discussion sessions in October 2020. Residents were encouraged to use these strategies to combat the stress of taking weekend call. The effectiveness of these strategies was quantified using pre- and post-call questionnaires which measured self-efficacy, stress regulation, and solution-mindedness.

Results:

These questionnaires had a response rate of 87% with a completion rate of 91%. In our cohort of first-year Ophthalmology residents, breath-control exercises were identified as the most effective strategy for mitigating the stress of taking weekend call. Breath control exercises were both the most utilized and most effective strategy for in improving self-efficacy, stress regulation, and solution-mindedness. Residents responded "moderately true" or "exactly true" in response to breathwork effectiveness questions in 73.9%, 82.9%, and 71.9% of cases respectively. Final biostatistical analysis is pending and will provide further insights.

Conclusions:

Teaching ophthalmology residents strategies to combat stress is an effective tool for promoting wellness and preventing physician burnout.

Creating an Integrated Transitional Year Internship from Scratch

ROYCE CHEN, MD*; GEORGE A. CIOFFI, MD; LORA R. DAGI GLASS, MD

Background:

Spurred by national mandate, we undertook a multi-laminar process to not only create the Department's inaugural internship year, but also Columbia's first comprehensive transitional year program.

Purpose:

To delineate the steps undertaken in creating and improving an inaugural transitional year program.

Methods:

The creation of our transitional year program required sponsorship from the highest administrative levels and the Graduate Medical Education (GME) office, and teamwork with a sister program. It benefited from a national and internal trainee survey. Meticulous organization allowed for the assimilation of 14 non-ophthalmic specialties into our internship. Informal and formal feedback sessions have been undertaken throughout the year.

Results:

Our program includes rotations through internal medicine, neurology, intensive care, rheumatology, adult and pediatric emergency medicine, oral maxillofacial surgery, ear nose and throat, neuroradiology, surgical clearance clinic, dermatopathology, and electives in Mohs, plastic surgery or endocrinology. Feedback and evaluations allow us to track our interns' interactions with these critical specialties and to nimbly initiate improvement cycles in live time.

Conclusions:

We have successfully launched a novel internship program with a focus on ophthalmic relevance; continuous feedback is essential for growth and allows for a cohesive internship culture.

Reinventing the Wheel: A Paradigm Shift in the Moran PGY-1 Ophthalmology Experience

BRANDON KENNEDY, MD*; RACHEL SIMPSON, MD; KATHERINE HU, MD; MIKE MURRI, MD; JEFF PETTEY, MD

Summary:

For 20 years, Moran's integrated intern year offered PGY-1 residents 4 months of hands-on ophthalmology experience, and for years this aspect of our training was unique and innovative. With the recent ACGME mandate to require 3 months of ophthalmology during PGY-1 year, our previously novel approach was suddenly no longer revolutionary, but simply the standard.

Although our curriculum allowed a breadth of clinical and procedural experiences, we were inspired by both our own residents and other programs to critically examine our intern year starting from scratch.

Surveys revealed that although residents felt well-prepared for PGY-2 year and praised early procedural experience (most met ACGME requirements for YAG lasers and intravitreal injections during intern year), they felt that a large burden was spent performing administrative duties with relatively little educational benefit.

We have formed a committee of education-minded faculty and residents of all training levels to overhaul the PGY-1 curriculum, with a goal of ensuring education is at the core of the intern year experience. Plans moving forward include a formal orientation, restructuring an on-rotation clinical skills roadmap, and integration into the resident Consults rotation. While our work is ongoing, it has already resulted in tangible improvements and increased resident satisfaction.

Project ACQUIRE: Applied Curriculum for Quality Improvement in Resident Education

TAJ NASSER, MD*; FAREED RIFAI, MD; PEGGY GRAMATES, MD; ZE ZHANG, MD

Background:

Studies in transitional psychology have revealed that transitions between sequential stages of the physician training process are highly stressful. In the transition from internship to ophthalmology residency, trainees are faced with many challenges including lack of pertinent background knowledge and difficulty with physical exam skills. Quality improvement tools have shown to be effective in increasing value throughout industry, healthcare, and medical education.

Purpose:

Using the PDSA (Plan-Do-Study-Act) cycle as an overall method, our aim was to improve effectiveness of Tulane PGY-1 resident ophthalmology educational experience by designing a peer-led, hands-on longitudinal curriculum to improve resident satisfaction by 50% in 6 months.

Methods:

Pre-curriculum survey was sent to current PGY-1 and PGY-2 residents to evaluate the status quo. A fishbone diagram was used to identify possible causes for ineffective Ophthalmology preparation. 5 sessions were organized in a uniform, resident-lead, 1:1 format throughout a 6-month period for a total of 29 sessions. Designed from resident feedback, the sessions involved the following: patient evaluation, manifest refraction, physical exam skills, orientation to call, and a wet lab session. Post curriculum survey was sent to residents to evaluate outcomes.

Results:

Mastering physical exam skills and earlier exposure to call were identified as the most desired learning objectives by our PGY-1 residents. On a scale from 1-10, resident perceived effectiveness of Ophthalmology preparation increased from 4.6 to 8.7 (p-value <0.00001). Overall resident satisfaction with the curriculum increased from 28.6% to 100% (p-value 0.0001).

Conclusions:

The transition from internship to ophthalmology residency is associated with a steep learning curve creating a stress burden for residents. The addition of 3 months of required ophthalmology training during PGY1 year will be very helpful in improving resident education. We found that applying QI tools including the PDSA cycle was a useful tool in improving quality of medical education for PGY1 residents. Implementing a peer-led 1:1 instruction hands-on curriculum improved the perceived effectiveness of ophthalmology preparation and resident satisfaction at Tulane.

Integration and Assessment of a Structured PGY-1 Microsurgical Wet Lab Curriculum

SARAS RAMANATHAN, MD*; HAMIDAH MAHMOUD; TESSNIM AHMAD, MD; NEETI PARIKH, MD; NEEL PASRICHA, MD

Summary:

We learned from our survey of program directors that very few PGY-1-specific microsurgical wet lab curricula exist in the US. At UCSF, we implemented an 8-session PGY-1 microsurgical curriculum which included sessions such as Microscope Basics and Ergonomics, Corneal/Scleral laceration repair, Scleral Tunnel creation, Lid margin laceration repair, Strabismus basics, Intravitreal injection, and Introduction to intraocular surgery.

To assess the impact of the curriculum, all PGY-1 residents completed a timed suturing task (graded on speed and quality) before beginning and after completing the curriculum. PGY-1 performance was compared to PGY-2 co-residents who had not participated in the curriculum. PGY1s showed objective significant improvement in time to task completion ($P=0.001$, 95% CI: [1.16, 1.93]) and surgical performance ($P= 0.04$, [-4.61, -0.20]) after completing the curriculum, and subjectively felt more comfortable with corneal suturing. PGY-1 residents also were non-significantly faster ($P= 0.61$, [-0.74, 0.47]) and performed better ($P = 0.51$, [-0.75, 1.35]) than their PGY-2 co-residents.

Given the steep learning curve of ophthalmic microsurgery, we believe the intern year provides a valuable opportunity to begin microsurgical training. We believe our structured PGY-1 microsurgical wet lab curriculum creates more skilled and confident ophthalmology surgeons earlier in their training.

Notes

Save the Date!

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