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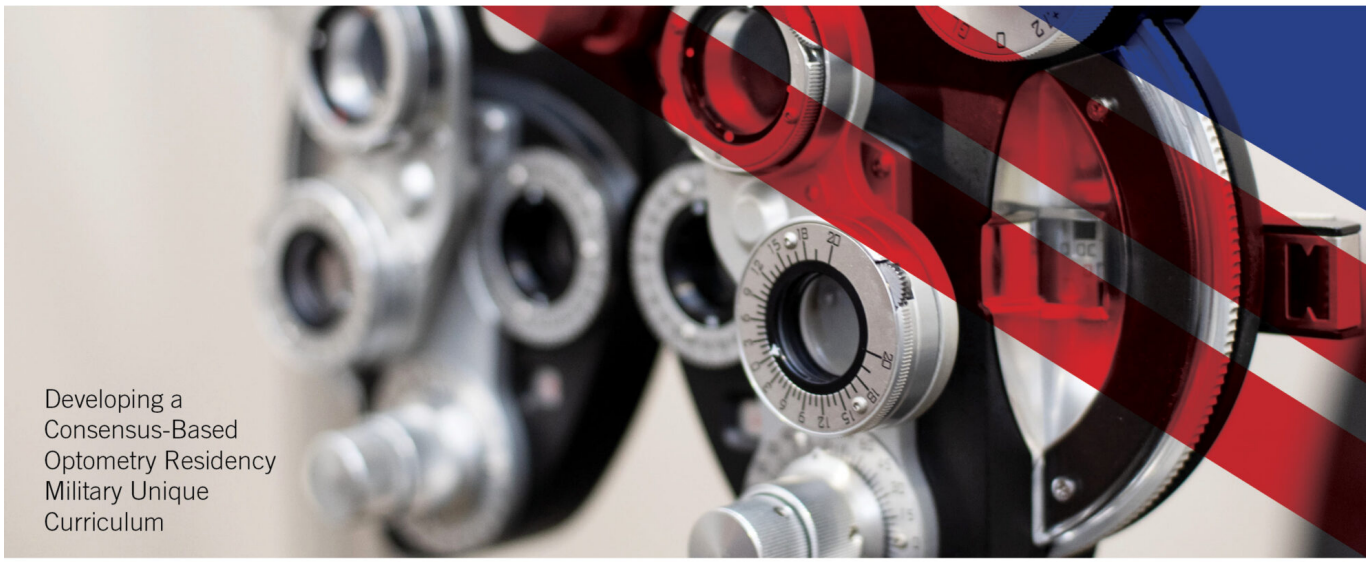

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Optometric Education: Volume 48 Number 3 (Summer 2023)

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Developing a Consensus-Based Optometry Residency Military Unique Curriculum

Christopher S. Alferez, OD, FAAO, Anita Samuel, PhD, Holly Meyer, PhD, and Kevin M. Jackson, OD, MPH, FAAO | Optometric Education: Volume 48 Number 3 (Summer 2023)

Abstract
Military optometry residencies currently do not adequately address the unique eyecare challenges faced by military optometrists. This study addresses the need for military-specific optometric education within residencies by identifying elements of an optometry Military Unique Curriculum (MUC). A modified nominal group technique was utilized involving Kern's Six-Step Approach to Curriculum Development for Medical Education. The expert panel determined a curriculum goal, MUC topics, an ideal MUC learning environment and optimal MUC capacity. Implementing this curriculum within military optometry residency programs could improve vision readiness and care within the Military Health System.

Key Words: *optometry residency curriculum, Military Unique Curriculum, curriculum development, nominal group technique*

Background

The Defense Health Agency (DHA) supports medical readiness in two aspects: It promotes a *ready medical force*, which is the preparedness of military health personnel to care for the warfighter, and it promotes a *medically ready force*, which is the preparedness of the warfighter against health threats.[1] Vision readiness is one of the key components of medical readiness.[2] It is defined as the visual ability required of military personnel to perform their mission safely and efficiently.[3] Military optometrists serve at the forefront of vision readiness as the primary eyecare providers for the nation's service members. Like their civilian counterparts, they perform eye examinations, prescribe glasses and contact lenses, and diagnose and treat ocular conditions. However, due to their status as service members and the special population they serve, they perform duties that differentiate them from civilian optometrists when they address ocular and visual issues unique to the warfighter. Because military optometry is crucial for vision readiness, a curriculum tailored specifically for the armed forces is necessary. To ensure this, military optometrists need to be able to address military-specific issues. Examples of such issues include triaging/treating combat ocular trauma, managing visual complications of traumatic brain injury (TBI), examining patients in austere deployed environments, and performing military vision readiness physicals.

Currently, there are five optometry residency programs in U.S. military facilities. The Army has two Primary Care Optometry residencies and one Vision Rehabilitation (Brain Injury Rehabilitation) Optometry residency. The Navy has one Primary Care/Ocular Disease Optometry residency. Lastly, there is one Tri-Service Vision Rehabilitation residency program. Currently, there is no optometry residency specific to the Air Force. Given the vast resources available in their respective facilities, each of these residency programs is fully capable of providing military-specific optometric training. However, this military-specific training is either significantly underdeveloped or completely absent within these

military optometry residency programs. Without such training, the programs risk residents being unprepared to face the challenges unique to military optometry. Consequently, military vision readiness will be at stake.

Military optometry residencies can implement a Military Unique Curriculum (MUC) to address this issue. The DHA defines MUC as "the integrated educational activities for trainees to learn and apply their specialty expertise to the scope of practice required for expeditionary medicine and unique issues of the MHS [Military Health System] patient population."[4] In fact, the DHA has mandated the implementation of MUCs within all military graduate medical education (GME) programs.[4] The Uniformed Services University of the Health Sciences (USUHS) has championed the concept of MUCs.[5] Further, during the 16th Annual Conference on Military Medicine at USUHS, a group of experts developed a model to identify and prioritize MUC content for GME programs within the military.[5] De Lorenzo emphasized that MUC implementation is important because solely developing clinical skills and medical knowledge during training is not enough to prepare learners to face military-specific operational challenges.[6] As a result, MUCs have been implemented in various medical programs throughout the military, including anesthesia, internal medicine, emergency medicine and infectious disease.[7-11] Of these MUCs mentioned in the literature, a wide range of military-specific topics are described, including tactical combat casualty care, combat stress, military occupational health, and force health protection. Studies of MUC effectiveness demonstrated greater perceived readiness for post-residency military operational assignments and improved deployment medicine knowledge.[8,9,11] These studies demonstrate practical benefits of implementing a MUC within military medical training programs.

Currently, all military optometry residencies do not have well-defined MUCs. It is also noteworthy that the Association of Schools and Colleges of Optometry currently does not define a residency category or emphasis area related to military practice.[12] The Accreditation Council for Optometric Education (ACOE) states that all optometric residencies should define specific goals and outline curricular content.[13] A MUC could be implemented within the goals and curricular content of an optometric residency. Thus, a needs assessment was conducted in this study to define the elements of a military-specific optometry curriculum that can serve as the first steps for military optometric residencies to fulfill the DHA mandate of MUC implementation.

This study aims to answer the question: What elements should be integrated into an optometry residency MUC to address the unique challenges that military optometrists encounter?

Methods

Methodological framework

To develop the MUC, a modified nominal group technique (NGT) was implemented. This technique effectively reaches consensus through collaboration and prioritizes information discussion.[14] The NGT process generally involves five steps: (1) introduction, (2) silent generation of ideas, (3) sharing of ideas, (4) group discussion and (5) voting. The modified NGT process was modeled after the peer coaching NGT study by Bell et al. and the military refractive surgery curriculum NGT study by Evangelista et al.[15,16] The NGT was selected to answer the research question because it enables equal representation of expert voices and has been successfully utilized for curriculum development.[16-19]

Kern's Six-Step Approach to Curriculum Development for Medical Education provided the conceptual framework for this study.[20] The six steps are: (1) problem identification and general needs assessment, (2) targeted needs assessment, (3) goals and objectives, (4) educational strategies, (5) implementation and (6) evaluation and feedback. Because this study was primarily a needs assessment, steps 1-3 were the focus of this study. Step 1 involves problem identification, where a healthcare need or problem is identified, and general needs assessment, which is an evaluation of the ideal approach vs. the current

approach of the curriculum. Step 2 assesses the needs of the curriculum's targeted learners and their learning environment. Step 3 defines the curriculum's broader goals and the specific objectives that would achieve the goals.

This study was submitted to the institutional Human Research Protections Office, which determined that Institutional Review Board review was not required.

Study sample

To determine the elements of the optometry residency MUC, an expert panel was identified. The panel consisted of four military optometry residency program directors and the three optometry service branch leaders (the Army Optometry Consultant, the Air Force Optometry Consultant and the Navy Optometry Specialty Leader) for a total of seven panelists. These panelists were selected based on their extensive teaching and/or military optometric expertise. The majority of the panelists had military operational or deployment experience. Furthermore, the service branch leaders were included due to their seniority and broad, strategic overview of military optometry in their respective branches. Panelists consented to participate in the NGT through email response, but they could also opt out of the study at any time before or during the session. All seven invited panelists agreed to and participated in the NGT. **Table 1** provides a summary of the panelist demographics.

Data collection and analysis

Figure 1. Click to enlarge

Data collection involved three phases **(Figure 1 and Appendix A)**. The first phase was a six-question questionnaire emailed to the panelists. This questionnaire was guided by Kern's Six-Step Approach to Curriculum Development for Medical Education.[20] A list of 18 military optometry-related topics was derived from the USUHS Ocular Trauma Skills Laboratory (Jackson KM. Uniformed Services University of the Health Sciences Ocular Trauma Skills Laboratory, Military Optometry Education Assessment Presentation. May 2021) and panelists were invited to suggest additional topics **(Table 2)**. The questionnaire sent to the panelists is included in Appendix A.

The second phase was the synchronous live NGT session conducted via online video conferencing and recorded for data analysis. The session consisted of five steps (Figure 1, Phase II). Panelists were provided an outline of the session and then given the de-identified panelist responses from the questionnaire in Phase I. Afterwards, the panelists silently generated ideas after reviewing the results. Next, the panelists individually held the floor and shared their ideas on the responses in a round-robin format. Responses were then discussed among the panelists. Lastly, the panelists anonymously voted on a consensus response for each question. Consensus was defined as the result with the most votes. This process was repeated for each of the six questions from the questionnaire.

TABLE 1
Panelist Demographics

Military Status/ Branch	Current Position	Years of Optometric Practice in a Military Setting	Total Years of Optometric Practice	Years of Resident Teaching Experience
Air Force	Air Force Optometry Consultant	24	24	0
Army	Army Optometry Consultant	20	25	0
Army	Army Optometry Residency Program Director	11.5	11.5	4.5
Army	Army Optometry Residency Program Director	4.5	4.5	1.5
Civilian	Navy Optometry Residency Program Director	10	40	25
Civilian	Tri-Service Optometry Residency Program Director	12	15	3.5
Navy	Navy Optometry Specialty Leader	24	24	0

Table 1. Click to enlarge

TABLE 2
Military Unique Curriculum Topics Voting Result

Optometry Military Unique Curriculum Topic	Low Priority	Moderate Priority	High Priority	Panelist Consensus
Ocular trauma	0.00%	0.00%	100.00%	High
Ocular disease	0.00%	0.00%	100.00%	High
Battlefield triage	0.00%	16.67%	83.33%	High
Ophthalmic rehabilitation for traumatic brain injury patients	0.00%	16.67%	83.33%	High
Ophthalmic considerations in medical evacuation (MEDEVAC)	16.67%	0.00%	83.33%	High
Management of acute traumatic brain injury	16.67%	0.00%	83.33%	High
Tactical combat casualty care (focused on the eyes)	0.00%	33.33%	66.67%	High
Battlefield ophthalmic ultrasound	33.33%	0.00%	66.67%	High
Laser and directed energy weapons protective eyewear	33.33%	16.67%	50.00%	High
Advanced usage of ZEISS FORUM	33.33%	66.67%	0.00%	Moderate
Military vision readiness and retention standards	16.67%	50.00%	33.33%	Moderate
Aviation optometry	33.33%	50.00%	16.67%	Moderate
Building and working with a foreign eye care network	33.33%	50.00%	16.67%	Moderate
Night vision goggles, heads-up displays, augmented vision	33.33%	50.00%	16.67%	Moderate
Advanced laser and minor surgical skills	33.33%	50.00%	16.67%	Moderate
Familiarization of military platforms and their eyecare capabilities	50.00%	16.67%	33.33%	Low
How to translate the skills and knowledge to the limitations of the optometric equipment field sets	50.00%	16.67%	33.33%	Low
Military optical fabrication	50.00%	33.33%	16.67%	Low
Telehealth in military eye care	50.00%	33.33%	16.67%	Low
Optometric role in military operations other than war (MOOTW) e.g., humanitarian assistance and disaster relief	33.33%	33.33%	33.33%	None
Specialty lens options and their use in a military environment	33.33%	33.33%	33.33%	None
Tri-service optometry (understanding your sister services)	33.33%	33.33%	33.33%	None

Note. Panelist added topics are in red type
Note. Results with the highest number of votes are in bold type

Table 2. Click to enlarge

The third phase involved member checking the voting results, which enabled the panelists to validate the votes and ensure the responses resonated with them (Figure 1, Phase III). After member checking, the NGT was determined to be complete and ready for data analysis. Data analysis involved both qualitative and quantitative methods. The votes were quantified to identify consensus responses. CA, HM and AS conducted a thematic analysis of the transcribed recording. They independently coded the data and met to discuss their findings. Through an iterative process of qualitative coding, themes and subthemes were identified, which allowed further contextual insight.[20]

Results

The synchronous live NGT session results are organized below by themes: MUC goal, MUC topics, learning environment and capacity.

Goal of an optometry residency Military Unique Curriculum

The group discussion on the goal of an optometry residency MUC raised three themes: visual rehabilitation, ocular disease and the need to be prepared for operational environments (i.e., combat deployment). The panelists agreed that visual rehabilitation should be integrated into residency training because TBI is a frequent warfighter injury. Ocular disease was directly related to operational environments because optometrists need the knowledge to independently manage ocular diseases in remote and under-resourced locations typical of wartime deployments. After the discussion, the following consensus MUC goal was identified: The goal of an optometry residency MUC should be to train military optometrists in advanced practice and procedures related to TBI/vision rehabilitation, ocular disease, as well as military-centric issues to increase KSAs (knowledge, skills and abilities) for wartime deployments. Note that for the purposes of this study, the term “military-centric” is synonymous with “military-specific.”

Military Unique Curriculum topics

In addition to the 18 MUC topics provided in the questionnaire, the panelists identified four topics: ocular disease, management of acute TBI, advanced laser and minor surgical skills, and how to transition the

skills and knowledge to the limitations of the optometric equipment field sets. During the synchronous NGT, these four options were added to the original list of topics; thus, the panelists voted on 22 topics (Table 2). Panelist consensus was based on the result with the highest number of votes (Table 2).

Nine topics were identified as high-priority. During the discussion, one of the panelists asserted that the Ocular Trauma Skills Laboratory at USUHS should be mandatory for residents. This comment was consistent with the panel's unanimous vote of ocular trauma and ocular disease as high-priority topics. Other high-priority topics included battlefield triage and ophthalmic rehabilitation for TBI patients. Six topics, including military vision readiness and retention standards and aviation optometry, were considered moderately important. The importance of understanding aviation optometry's dynamics, perceptions and misperceptions was mentioned during the discussion, but overall it was seen as a topic of moderate priority. Four topics were considered low priority, and three did not achieve consensus in the voting.

Learning environment

Panelists agreed that an optimal learning environment would provide opportunities for hands-on training with high volume and/or high complexity of patients. The panelists also emphasized the importance of exposure to austere or under-resourced environments to help prepare residents for deployment. Consequently, the panelists reached a consensus that an optometry residency MUC should "provide access to both field training and advanced clinical care for TBI (i.e., Centers of Excellence) and have high volume and/or high complexity of patients along with access to subspecialists."

Capacity

Residency programs have a finite time to accomplish their goals. Recognizing this constraint, participants were asked how many military-specific topics should be implemented in a MUC. The panelists selected three ranges to vote on: 1-3, 4-6 and 8-10. Considering only military context-specific topics, the consensus was that 4-6 topics (50%, n=3) would be optimal **(Table 3)**.

TABLE 3
Military Unique Curriculum Capacity

Number of MUC Topics*		Hours per Month Devoted to the MUC	
Number of Topics	Votes Received	Hours per Month	Votes Received
1-3	17%; n=1	3-4 hours per month	43%; n=3
4-6	50%; n=3	16 hours per month	57%; n=4
8-10	33%; n=2	80 hours per month	0%; n=0

**One panelist had to step away unexpectedly; therefore, only six of the seven panelists voted for this question*

MUC = Military Unique Curriculum

Table 3. Click to enlarge

The panelists also voted on the number of hours per month devoted to the MUC within an optometry military residency program. The panelists selected three voting choices for the number of hours per month: 3-4, 16 and 80. The panelists discussed that 16 hours is based on one-half day per week, and one of the panelists suggested 80 hours, arguing that half of the residents' total of 160 working hours per month should be dedicated towards MUC topics. The consensus was that 16 hours a month (57%; n=4) should be devoted to the MUC (Table 3).

Discussion

Military healthcare providers are in a unique position relative to their civilian counterparts because they must be both proficient in their medical specialty and knowledgeable in military-specific issues. Currently, military optometry residencies do not sufficiently address military-specific issues within their curricula.

Implementation of a MUC could serve as a means to address this gap. In this study, we utilized Kern's Six-Step Approach to Curriculum Development for Medical Education to help identify elements of the MUC.[20] The NGT was employed to address Kern's steps 1-3: (1) problem identification and general needs assessment, (2) targeted needs assessment and (3) goals and objectives.

The panelists in this study agreed that the MUC goal should be to "train military optometrists in advanced practice and procedures related to TBI/vision rehabilitation, ocular disease, as well as military-centric issues to increase KSAs (knowledge, skills and abilities) for wartime deployments." As with other MUCs, the panelists in this study focused on commonly encountered military-specific issues to maximize the effectiveness of the MUC. Nine topics were voted as high-priority, two of which were topics added by the panelists (ocular disease and management of acute TBI). The curricular limitations and time constraints of residency training as outlined by the ACOE residency standards were acknowledged in the suggestion for 4-6 military-specific topics covered over 16 hours.[13] The panelists also reinforced the need within residency programs for contextual training and advanced competency, also emphasized by the ACOE.[13]

This study focused on the creation of a curriculum designed for military optometry residency programs. However, the framework and findings have implications for civilian optometric educators as well. Methodologically, this study further supported utilizing the NGT as an effective strategy for consensus decisions. Also, the NGT can be conducted fully online, enabling access to geographically dispersed subject experts. Delphi studies and expert interviews have been used to formulate curricula.[22-25] However, these are resource intensive in time and money.[26-27] Optometric educators therefore may find value in utilizing the NGT when designing or revising curricula.

This study also highlighted the effectiveness of using a curriculum development framework such as Kern's six-step model. The model provides a structured approach to designing curricula and ensures that all elements of curriculum design are considered. The Kern model has been used extensively in medical education. This study demonstrated that Kern's evidence-based curriculum development model can also be used in optometric education.

The limitations of this study included addressing only Kern's steps 1-3, leaving Kern's steps 4-6 (educational strategies, implementation, and evaluation and feedback) for future research. The notable time and resource commitments of Kern's curriculum development model precluded inclusion of all steps. Future studies to develop this optometry residency MUC could consider including the other elements of Kern's Six-Step Approach that were not included in this study, especially educational strategies and implementation. In addition to the consensus data from the NGT, epidemiological data from prior wars and conflicts would further augment the curriculum material. Lastly, the service branch leaders did not have resident teaching experience; however, their feedback was valuable, given their broader knowledge of military optometry at the strategic level.

Conclusion

Through the consensus of a military optometry expert panel, we developed a framework for a formalized Tri-Service optometry residency MUC. With this consensus curriculum, military optometry residency programs can prepare residents to become a *ready medical force*, from fixed-facility locations stateside to deployed locations worldwide. Consequently, the curriculum can promote a *medically ready force* by enhancing vision-saving eye care on the battlefield, improving visual rehabilitation of injured service members returning from combat, and ensuring vision readiness for deployable forces, fully leveraging the unique role of the military optometrist.

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APPENDIX A
Data Collection Phases

Phase I: Introduction to the study and questionnaire were sent via email to the panelists before the live nominal group technique session. Questions were as follows:

1. What should be the goal of the optometry residency Military Unique Curriculum? [Entered as free-text.]
2. Please rate the following Military Unique Curriculum topics [Table 2] as follows: high importance, moderate importance, low importance. [See topics in Table 2. Added topics generated from question 3 are labeled as noted.]
3. Are there additional Military Unique Curriculum topics you would like to suggest? [Entered as free-text.]
4. What is the ideal learning environment required for an optometry residency Military Unique Curriculum? [Entered as free-text.]
5. With the limits of curriculum time in mind, how many of these topics above should be implemented in the optometry residency Military Unique Curriculum? [Dropdown selection: 1-3 topics, 4-6 topics, 7-9 topics, 10-12 topics, 13+ topics]
6. How many hours per month should be devoted to the Military Unique Curriculum during the residency? [Entered as free-text.]

Phase II: Live nominal group technique session (2.5 hours); each step was utilized to answer the six questions from the pre-session questionnaire.

1. Introduction and response review: presented responses were not tied to the individual panelists.
2. Silent generation of ideas: Panelists were encouraged to silently reflect on the responses and think about what additional thoughts they would like to share that were not already generated from the questionnaire.
3. Sharing of ideas: Panelists were individually given the floor in a specific sequence to share their thoughts including which responses resonated with them. The sequence order was determined via a random sequence generator.
4. Group discussion: Allowed for open dialogue between panelists. The aim was to have at least 1-2 viable responses to vote on.
5. Voting: Consensus was the response with the greatest percentage of votes.

Phase III: Member checking

1. Results were sent to the panelists via email.
2. Panelists were requested to verify that the votes were consistent with the results of the nominal group technique and if the responses resonated with each of them.

Appendix A. Click to enlarge

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PEER REVIEWED

Graduating Optometry Student Perceptions of Their Scleral Lens Fitting Knowledge

Jennifer S. Harthan, OD, Jennifer Fogt, OD, MS, Muriel Schornack, OD, Cherie Nau, OD, Amy Nau, OD, and Ellen Shorter, OD | Optometric Education: Volume 48 Number 3 (Summer 2023)

Abstract

Although optometric programs have incorporated scleral lens (SL) education into their curricula, student experience with SL fitting varies widely. This survey study describes the SL fitting and training experiences of optometry students graduating from U.S. schools and colleges. Participants (323) were fourth-year students preparing to graduate in 2020 (19% response rate). Students appeared to have insufficient SL fitting practice. The median number of SL evaluations completed before graduation was 5 (range 0-110), and 63% of respondents reported performing fewer than 10 fits. Students with an interest in fitting SLs may wish to pursue additional training opportunities, such as residency, to acquire more experience and achieve sufficient proficiency.

Key Words: scleral lens, education, curricula, students, contact lens

Background

Following their introduction in 1983,[1] scleral lenses (SLs) were primarily utilized by providers in tertiary care centers or specialty contact lens practices to treat severe eye disease. As SLs have become more commercially available, their prescription has expanded into community eyecare practices.[2] With this expansion, SL education has been incorporated into the contact lens curricula of U.S.-based schools and colleges of optometry.[3] A 2019 survey of optometric educators showed that ideal SL fitting characteristics taught include central corneal clearance of 206.3 $\pm$ 44 µm, 62.1 $\pm$ 23.6 µm of limbal clearance, and one clock hour or less of conjunctival vascular compression at the landing zone.[3] Thus, graduating students theoretically have at least cursory experience with SL evaluation prior to entering practice.

The 2019 survey of educators also revealed considerable variability in the number of SL evaluations performed by students during their optometric training. Because SL education is relatively new and many current practitioners had to learn fitting after graduation from optometry school,[2] recent graduates should possess some initial advantage in their SL knowledge and experience before entering practice compared with previous generations of students. Given the limited clinical experience of new graduates, didactic SL education will guide their initial prescription and management of SLs as they enter practice. Quantifying and qualifying these students' experience and understanding of SLs will provide guidance for ongoing development of SL education programs. In this study, fourth-year students at U.S. optometry schools and colleges were directly queried about their SL fitting experience during their training and were asked to define aspects of what they considered an ideal SL fit.

Methods

This study was reviewed and approved by the Institutional Review Board at the University of Illinois at Chicago. An electronic REDCap (Research Electronic Data Capture)[4,5] 24-item survey was designed by the Scleral Lenses in Current Ophthalmic Practice Evaluation (SCOPE) study team and hosted by the university. The complete survey is shown in **Appendix A**. A representative (American Optometric

Association/American Academy of Optometry student liaison, contact lens educator, contact lens clinic chief, dean or director) from 23 of the U.S.-based schools and colleges of optometry was asked to distribute the survey link to fourth-year students at their respective institutions. The survey was active from February 15, 2020, through May 15, 2020. Two reminders were sent to representatives, but it was not verified that the survey was distributed to all fourth-year students. Surveys were completed anonymously with a chance to win a $100 gift card. Participants were not asked to identify the institution at which they received their training.

Participants were asked to identify the year in which SLs were introduced during their optometric education, and to estimate the number of SL evaluations they had personally performed during their clinical training. They were asked to describe aspects of what they considered ideal SL fitting characteristics (central corneal clearance, limbal clearance, landing zone alignment)[6] along with methods they utilized to clinically evaluate SL fits (estimation of central and limbal clearance, assessment of landing zone alignment, and use of sodium fluorescein). Participants were able to type values for clearance estimations and SL diameters, which were then put into categories upon analysis. Additional aspects of SL prescription and management queried included identification of characteristics of poor lens fit that would prevent SL dispensing, and timing and components of follow-up exams. Finally, participants were asked to identify sources they planned to utilize to stay informed about new developments and best practices in SL prescription and management following graduation.

Participants were not required to respond to every question. Several items allowed participants to select multiple responses. Descriptive statistics are reported. Median scores for numerical responses are reported, with interquartile range (IQR) and range of all responses given. The IQR provides the range of the middle half of the data set rather than the spread of the whole data set.

Results

Of the estimated 1,725 potential graduating students from U.S. schools and colleges of optometry in 2020,[7] 323 (19%) fourth-year students completed the survey. More than half of all participants (58%, 187/323) reported SL education was introduced during their second year of optometry school. Thirty-one percent of students (101) were introduced to SLs during their third year. Two individuals reported SL education was not taught. The median (IQR) reported number of SL evaluations completed during training was 5 (13); (range 0-110; n = 323). Sixty-two percent (201) reported they had fit fewer than 10 SLs. The distribution of the number of SL fits reported by students can be found in **Table 1**.

Students were asked what they considered to be the ideal SL diameter. Of the 255 students who responded to this question, 237 indicated a diameter of 14 mm or larger was ideal. The median (IQR) ideal SL lens diameter was 16 (2) mm; (range 8-22) **(Table 2)**.

Students were also asked to provide numerical responses to items related to ideal SL design and fitting characteristics **(Table 3)**. The median (IQR) minimum acceptable central corneal clearance reported by students was 150 (100) µm; (range 0-500 µm; n = 272), and the median (IQR) maximum acceptable central clearance was 300 (150) µm; (range 0-700 µm; n = 271) (Table 2). The median (IQR) reported values for minimum and maximum acceptable limbal clearance were 50 (25) µm; (range 0-350 µm; n = 254) and 100 (125) µm; (range 0-600 µm; n = 253), respectively. Respondents indicated their willingness to accept vascular blanching or compression with SL wear, and most (71%, 190/266) reported no vascular blanching or compression should be considered acceptable. Approximately one-third of participants (20%, 52) indicated that up to one clock dial (30 degrees) of blanching or compression was acceptable, 8% (20) of students reported one quadrant (90 degrees) to be acceptable, 1.6% (4) reported two quadrants (180 degrees) to be acceptable, and no student reported three or more quadrants of blanching of conjunctival vasculature beneath the landing zone to be acceptable.

TABLE 1
Number of Reported Scleral Lens Fits Completed by Fourth-Year Students

Scleral Lens Fittings Completed	Number of Respondents (percentage) n=323
Fewer than 5	134 (41.5%)
5-9	69 (21.4%)
10-19	56 (17.3%)
20-29	29 (9%)
30-39	14 (4.3%)
40-49	7 (2.2%)
50-59	7 (2.2%)
60 or more	7 (2.2%)

Table 1. Click to enlarge

TABLE 2
Ideal Scleral Lens Diameter Reported by Fourth-Year Students

	Number of Participants	Ideal Scleral Lens Diameter (in millimeters) Reported by Students									
		less than 12	12 to less than 13	13 to less than 14	14 to less than 15	15 to less than 16	16 to less than 17	17 to less than 18	18 to less than 19	19 to 20	greater than 20
Ideal Scleral Lens Diameter	n=255	1 (0.4%)	7 (2.7%)	10 (3.9%)	49 (19.2%)	50 (19.6%)	104 (40.8%)	11 (4.3%)	16 (6.3%)	6 (2.4%)	1 (0.4%)

Table 2. Click to enlarge

TABLE 3
Ideal Scleral Lens Fitting Characteristics* Reported by Fourth-Year Students

	Number of Responses	Clearance Range Deemed Ideal by Students (in microns)											
		less than 25	25 to 49	50 to 99	100 to 149	150 to 199	200 to 249	250 to 299	300 to 399	400 to 499	500 to 599	600 to 699	700 or more
Minimum Corneal Clearance	n=272	4 (1.5%)	0 (0%)	43 (15.8%)	84 (30.5%)	74 (27.2%)	39 (14.3%)	31 (11.4%)	14 (5.1%)	3 (1.1%)	0 (0%)	0 (0%)	0 (0%)
Maximum Corneal Clearance	n=271	2 (0.7%)	1 (0.4%)	1 (0.4%)	4 (1.5%)	8 (3%)	23 (8.5%)	32 (11.8%)	109 (40.2%)	62 (22.9%)	22 (8.1%)	5 (1.8%)	2 (0.7%)
Minimal Limbal Clearance	n=264	34 (13.4%)	54 (21.3%)	115 (45.3%)	32 (12.6%)	9 (3.5%)	5 (2.0%)	2 (0.8%)	3 (1.2%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Maximal Limbal Clearance	n=253	7 (2.8%)	6 (2.4%)	59 (23.3%)	77 (30.4%)	37 (14.6%)	32 (12.6%)	8 (3.2%)	19 (7.5%)	4 (1.6%)	3 (1.2%)	1 (0.4%)	0 (0%)

*A 2019 survey of scleral lens educators found consensus on ideal central corneal clearance (206 ±44 microns, range 150– 350) and ideal limbal clearance (62 ±23 microns, range 20–100)[3]

Table 3. Click to enlarge

Most (86%, 225/263) students indicated they would plan to schedule SL follow-up visits at a specific time of day after a defined amount of wearing time. Ideal wearing time before a SL follow-up examination was reported as at least 2 to 4 hours by 59% (156) of students, 5 to 6 hours by 14% (36), 7 to 8 hours by 3% (7) and 30 to 60 minutes by 8% (20). There were 323 students who responded to questions regarding evaluation of corneal and conjunctival tissue following SL removal at a follow-up examination. Many students (70%, 227) reported evaluating for corneal staining, 61% (197) evaluated conjunctival staining, and 61% (196) looked for signs of persistent conjunctival impression following SL removal. Nine percent (30) reported routinely measuring corneal thickness following SL removal, and 2% (5) indicated they did not evaluate anterior ocular structures without the SL during follow-up evaluations. Approximately half of the students (48%, 124/261) reported that SL patients should be instructed to remove and re-apply their lenses during the day. Most participants (92%, 242/264) reported they educate their patients not to rinse their SLs with water.

There were 263 students who responded to how they intended to stay up to date on future developments with SLs following graduation. In-person and online continuing education were identified as anticipated primary sources of information (41%, 108 and 38%, 101; respectively). Only 9% (23) of participants intended to receive their SL information from industry representatives, and even fewer participants indicated they planned to personally utilize information presented in either contact lens trade journals (6%, 15) or peer-reviewed literature (6%, 17) to maintain updated knowledge regarding SLs following graduation.

Discussion

Although SLs are now included in didactic curricula for all optometric students, the amount of clinical experience with SLs that students attain during their training is highly variable and relatively limited.[3] The responses of fourth-year optometric students were compared to a previously reported survey of scleral lens educators.[3] More than half of the fourth-year students in this survey had completed fewer than 10 SL evaluations by the time of graduation. Some students (9%) reported no clinical exposure to SLs at all. In the 2019 survey, educators estimated students complete an average of 18 SL evaluations during training, suggesting overestimation of students' SL clinical experience.[3] Optometry students could potentially benefit from having at least 10 clinical opportunities to evaluate SLs.

Lack of clinical experience may explain deficits in students' understanding of the basic definition of a SL. In some cases, students did not recognize essential features of scleral lens prescription and management including 7% of students who indicated the ideal SL diameter was less than 14 mm. Another potential area of improvement identified is related to clinical evaluation of patients using SLs. While educators nearly unanimously recognized the importance of removing SLs for anterior segment evaluation during follow-up examinations, only slightly more than half (61%) of students indicated they would evaluate for corneal or conjunctival staining at follow-up examinations.[3] On the other hand, students appeared to be more concerned about other aspects of the SL fit compared with educators. While most students reported no scleral landing zone vascular blanching or compression was acceptable, most educators (46%) found one clock hour of blanching or compression (30 degrees) to be

acceptable.[3] This suggests students are relying on didactic education alone due to a lack of experience fitting SLs. Educators, who presumably have more experience fitting SLs, appear to accept that a perfect fit cannot always be achieved.[3]

While most students who participated in the current study received didactic education on SL prescription and management and had some clinical exposure to SLs during their clinical rotations, the responses suggest a sufficient level of clinical skill in SL management was not attained at the time of graduation. Developing both efficiency of the fitting process and proficiency in the management of conditions treated with SLs should be considered as SL curricula continue to evolve. Efficiency in the SL fitting process involves the ability to progress through initial evaluation and the fitting process with minimal delay. Although Macedo-de-Araújo et al. reported that the number of diagnostic lenses applied during initial evaluation and the total number of revised lenses ordered during the fitting process decreased significantly once a practitioner had completed 60 SL fits,[8] it may not be necessary for students to see that many patients to achieve visual and physiologically successful fits. However, students who have minimal exposure to SL fitting during training might find incorporation of these devices into their practices financially and logistically challenging following graduation. Developing true proficiency in SL fitting does not necessarily directly correlate with the number of SL patients evaluated. Students who have evaluated a relatively large number of lenses on healthy eyes may be less proficient at identifying and managing issues related to SL wear than those who have evaluated a small number of lenses on more complex eyes.

Whenever possible, contact lens educators should emphasize the role of SLs in overall disease management in addition to identifying acceptable SL fitting characteristics when working with students. Concentration on the disease being treated would increase awareness of the importance of careful evaluation of the eye during SL follow-up visits. To provide more experience for students, clinical educators could consider allowing multiple students to work together on SL fitting in appropriate patients or offering additional fitting opportunities with educational workshops. Students who intend to incorporate specialty contact lens prescription into their practices may benefit from additional learning opportunities such as a contact lens residency (Accreditation Council on Optometric Education's Cornea and Contact Lens Residencies[9]) or fellowship (American Academy of Optometry,[10] Scleral Lens Education Society[11]). Referral to colleagues within the optometry community is an option for those who do not wish to engage in specialty contact lens practice. Limited experience with SLs during optometric education may lead some graduating students to avoid fitting them in private practice and may be one reason the number of SL practitioners entering this specialty each year appears to be plateauing.[12]

One limitation of the study may have been created by the sampling method used to recruit participants. Participation may have been impacted by the administrators' willingness to circulate the survey to current fourth-year students, and student participation could have been impacted by the amount of emphasis placed on SLs in their respective institutions. This survey was deployed after the onset of the COVID-19 pandemic. Disruptions in clinical practice due to the pandemic potentially reduced the total number of patients (including patients wearing SLs) evaluated by students in the graduating class of 2020. Participants responding after their clinical experiences were put on hold at their institution conceivably influenced the number of SL fits evaluated and completed by the graduating class of 2020. The variability in the number of SL patients evaluated may also be explained by the type of externships completed. Students who match with schools with large specialty contact lens clinics or busy private practices perhaps gained considerably more experience in fitting and evaluating SLs compared with those who chose other externship opportunities.

Conclusion

There is considerable variability in the number of SL evaluations students are exposed to during their optometric training. While didactic training necessarily focuses on observation of aspects of the

alignment between the SL and ocular surface, clinical emphasis on disease entities treated with scleral lenses along with concentration on the physiological effects of SL wear on the ocular surface may help students develop true proficiency in both SL fitting and disease management. Allowing students to work in groups or teams could provide additional opportunities to gain SL experience and to learn from each other. If students intend to incorporate SLs into their clinical practices, they may do well to avail themselves of additional educational opportunities, specifically residencies or fellowships, to further develop their SL knowledge and experience.

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Appendix A. Click to enlarge

Dr. Harthan [jharthan@ico.edu], a graduate of Illinois College of Optometry (ICO), completed a residency in cornea and contact lenses at ICO and is a Professor at the college. She is also Chief of the Cornea and Contact Lens Center for Clinical Excellence at Illinois Eye Institute.

Dr. Fogt is an Assistant Professor at The Ohio State University College of Optometry. She earned her Doctor of Optometry and Master of Science in Pharmacology degrees at The Ohio State University.

Dr. Schornack is an Associate Professor at Mayo Foundation for Medical Education and Research in Rochester, MN. She completed her training and residency at Illinois College of Optometry

Dr. Cherie Nau is a graduate of Illinois College of Optometry and she completed a fellowship in cornea and contact lenses at Davis Duehr Dean Medical Center. She is an Associate Professor at the Mayo Foundation for Medical Education and Research.

Dr. Amy Nau is a partner at Korb & Associates and an Adjunct Associate Clinical Professor at New England College of Optometry (NECO). She is a graduate of NECO and she completed an ocular disease residency at the Boston VA Medical Center.

Dr. Shorter is an Associate Professor of Clinical Ophthalmology and Director of the Prosthetic Replacement of the Ocular Surface Ecosystem (PROSE) Clinic at Illinois Eye and Ear Infirmary, University of Illinois at Chicago. She graduated from Illinois College of Optometry and completed an ocular disease and low vision rehabilitation residency at the Jesse Brown VA Medical Center and a clinical fellowship at The Boston Foundation for Sight.

Features

Announcement

SCO Faculty Members Win ASCO's 2023 Dr. Lester Janoff Award for Writing Excellence

| *Optometric Education: Volume 48 Number 3 (Summer 2023)*

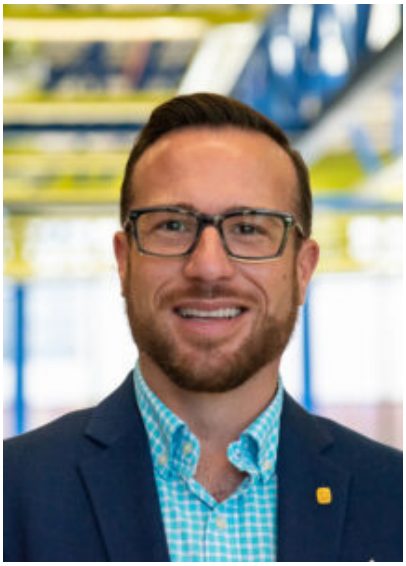
Southern College of Optometry faculty members Melissa Zarn Urankar, OD, FAAO, Gregory S. Wolfe, OD, MPH, FAAO, FNAP, and Janette D. Pepper, OD, FCOVD, FAAO, are the winners of ASCO's 2023 Dr. Lester Janoff Award for Writing Excellence.

The award recognizes an outstanding research paper published in the previous 2 years in ASCO's online peer-reviewed journal, *Optometric Education*. A committee of members of the journal's Editorial Review Board selects the winning paper based on significance of the topic chosen, quality of the paper and potential impact. Read this year's winner ? "Training Implicit Bias and Awareness of the Impact of Systemic Racism on Health: a Preliminary Study of Second-Year Optometry Students" ? at the journal website. Aurora Denial, OD, FAAO, DAAO (OE), talks more about the paper's impact in this video presented during ASCO's Annual Business Meeting.

The award is named in honor of the late Dr. Lester E. Janoff, who was Editor of the journal from 2002-2005 and a longtime member of the Editorial Review Board. Dr. Janoff was known not only as an exceptional optometric educator, administrator, contact lens clinician and researcher but also as a beloved mentor of young writers. The winners of the writing excellence award receive certificates and $2,000, which is divided among the authors.

Janette D. Pepper, OD, FCOVD, FAAO

Melissa Zarn Urankar, OD, FAAO



Gregory S. Wolfe, OD, MPH, FAAO, FNAP

Announcement

ASCO’s Student Award in Clinical Ethics: 2023 Winning Essay

| *Optometric Education: Volume 48 Number 3 (Summer 2023)*

ASCO and its Ethics Educators Special Interest Group are pleased to announce Zebin Dholasaniya, OD, as the winner of the 2023 Student Award in Clinical Ethics. Dr. Dholasaniya is a recent graduate of the University of Houston College of Optometry. Her winning essay, “The Ethical Dilemma: a Pediatric Patient’s Right to Truth vs. Parents’ Nondisclosure Request” appears below.

The Student Award in Clinical Ethics competition, sponsored by Alcon, is open to optometry students during any point in their professional program at an ASCO-affiliated school or college of optometry. The winner receives an engraved plaque and $1,000.

ASCO thanks all students who submitted essays this year.

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The Ethical Dilemma: a Pediatric Patient’s Right to Truth vs. His Parents’ Nondisclosure Request

By Zebin Dholasaniya, OD

Zebin Dholasaniya, OD

Optometrists are often forced to walk a tightrope in maintaining the delicate balance between their moral obligations and their legal duty. Medical decision-making in the pediatric population is a balancing act between respecting the autonomy and decision-making privileges of the parent and ensuring the well-being and health of the child. The following case illustrates the complex relationship between an optometrist’s duty to care for a pediatric patient and the legal authority of the parents to make decisions on the child’s behalf.

Case Description

A 15-year-old African American male presented for a low vision evaluation with the goal of acquiring a Texas driver's license. His ocular history was positive for X-linked retinitis pigmentosa diagnosed at age 5. At the patient's initial visit to the clinic 2 and a half years ago, per the parents' request, the child was not made aware of his ocular diagnosis and only informed that his eyes were "different." At his most recent visit, his best-corrected distance visual acuities were 20/60-2 in the right eye and 20/70-2 in the left eye. Fundoscopic examination revealed bilateral bone spicules 360 degrees in the peripheral retina and arterial vessel attenuation consistent with the diagnosis of retinitis pigmentosa. Esterman visual field testing (binocular) showed restriction to approximately 20 degrees right and 15 degrees left horizontally with some sparing in the far periphery. Additionally, a 30-2 SITA Standard test demonstrated bilateral severe generalized depression on both pattern and total deviation with a mean deviation of -25.74 dB in the right eye and -25.84 dB in the left eye. According to the Texas Medical Advisory Board, the vision requirements for a Texas driver's license are visual acuity of 20/40 or better in each eye and visual field of 140 degrees horizontally.[1] The qualifications for a restricted driver's license in Texas are visual acuities between 20/50 and 20/70 and visual field of 140 degrees horizontally.[1] Patients with visual acuities better than 20/200 can potentially be eligible for a Texas driver's license if their visual acuity improves to 20/40 or better with a bioptic.[1] Based on these guidelines, the patient did not meet the vision requirements for obtaining a Texas driver's license with or without a bioptic due to the visual field restriction.

The challenge that presented itself was determining the extent to which the patient knew about his condition. In the patient's absence, the parents clarified that the patient knew he had retinitis pigmentosa but was not informed about the progressive blindness associated with the condition, and they preferred to keep it that way. It was recommended the parents be honest and fully transparent with the patient about his condition, and resources to retinitis pigmentosa support groups were provided to assist the parents in navigating this difficult conversation. When the patient returned to the exam room, the family was informed that he did not meet the vision guidelines for obtaining a Texas driver's license. The parents implored whether low vision devices could aid in qualification. The family was educated that although a low vision device would not make him eligible, there were devices that could aid in reaching career or education goals. The patient was interested in becoming a veterinarian and committed to extracurricular activities, courses and certification programs involving animals. However, he was currently struggling to perform in his dissection course at school. A clip-on binocular magnifier was presented to the patient. Initially, he refused the device. Previously he had been given a handheld telescope and pocket magnifier but he did not use them due to feeling "different" among his peers in school. However, a month after the most recent visit, the patient requested the clip-on magnifier.

Managing the patient's retinitis pigmentosa mainly consisted of navigating a difficult conversation about the ineligibility to drive and enhancing vision to promote success in education. However, it was complicated by the parents' request to not disclose the progressive permanent vision loss and the realization that the truth would only make the child feel further ostracized by his peers.

Discussion

As healthcare providers, optometrists must abide by the medical code of ethics. The principles central to decision-making in eye care include autonomy, beneficence, non-maleficence and veracity.[2] In this case, the ethical principles challenged by parental involvement in an optometrist's management of a pediatric patient include the defiance of trust and omission of truth from a child at the authority of the parents.

Patients have the right to make decisions about their medical care, and optometrists have a duty to respect these decisions.[2] This is known as autonomy.[2] However, in children, the capacity to engage in informed decision-making is limited, and until a child reaches age 18, the child's parents have the legal

authority to determine what is in the best interest of the child. In this case, there was a conflict between the child's right to know about the progressive blindness associated with his diagnosis, which has the potential to impact his adult life, and his parents' desire to protect their child's emotional well-being. The parents' desire to protect their child paralleled the optometrist's duty to safeguard an especially vulnerable patient from a diagnosis that may compromise his emotional well-being. On the other hand, it was important the patient be made aware of the permanent and progressive nature of his condition so that he may learn to accept his diagnosis and the use of low vision devices to enhance his prospects of becoming a veterinarian. Although there are no guidelines barring a visually impaired individual from the practice of veterinary medicine in Texas, the extent of the visual impairment and its hindrance of the ability to perform surgery may render an individual unable to practice as a veterinarian.[3]

While the patient was not of legal age to be a fully autonomous decision-maker, children exhibit varying degrees of intellectual and emotional aptitude. The patient's cognitive and emotional development was assessed to determine his emotional resilience in handling the prognosis of his condition and his maturity in making decisions regarding his diagnosis. Ultimately, the parents' wishes to withhold the prognosis of the patient's condition was respected. The parents were advised to fully disclose to the child the nature of his condition and were provided retinitis pigmentosa support group resources in hopes they would use them to help navigate that conversation. It was believed that giving the parents some say in how the disclosure is handled would facilitate acceptance of disclosure and show respect for the patient's relationship with his family. Although it is unknown whether the disclosure had taken place following the visit, the patient's desire to have the low vision device after initially refusing it inspires hope. When managing and treating pediatric patients, optometrists must consider their moral and ethical obligations to their patient and the legal authority vested in parents and their nondisclosure requests.

Nondisclosure requests challenge the principle of veracity. Veracity refers to optometrists' obligation to be honest and truthful with their patients about their conditions and treatment options.[2] In this case, initially not disclosing to the patient the specific disease and then its severity per the parents' request was done out of respect for the parents' trust, but at a cost to the patient. Withholding a medical diagnosis or prognosis from a child poses risks to the optometrist-patient relationship. If the patient were to discover the optometrist was hiding information about his ocular diagnosis, he may harbor resentment and distrust the management of his condition. Furthermore, the patient's own curiosity about his diagnosis may have prompted him to conduct his own research. As a consequence, he may know more about his diagnosis than he may be letting on. However, information acquired from non-vetted sources could put him at risk of having inaccurate information or imagining worst-case scenarios. If the patient had the full picture in regard to his diagnosis, he might be more likely to comply with management recommendations such as using low vision devices at home and in school. Transparency may improve acceptance and contribute to better long-term adjustment to the condition. This is despite the discomfort and stress the patient may endure now in realizing he will have to rely on low vision aids and will never be able to acquire a Texas driver's license when his peers can. However, disclosing this to the patient along with providing the resources to his parents were the initial steps toward facilitating acceptance.

Conclusion

Optometrists often serve as bearers of difficult truths when delivering a diagnosis to patients. In pediatric populations, optometrists must weigh the burden of the truth on the child's emotional health against the child's future and right to know. Furthermore, they must juggle the parents' legal privileges to make decisions on the child's behalf and what is in the child's best interest. In this case, the obligations to protect and care for the pediatric patient and to cooperate with the parents' nondisclosure request were reconciled by encouraging disclosure among the family.

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Call for Papers

Theme Edition to Focus on Global Optometric Education

| *Optometric Education: Volume 48 Number 3 (Summer 2023)*

We are pleased to announce a theme edition of the journal that will be dedicated to global optometric education. We welcome manuscript submissions that highlight research, curricula, pedagogy, public health initiatives and other projects that align with the theme edition's mission of sharing ongoing efforts to advance the profession of optometry worldwide.

You may submit your manuscript in the customary format [https://journal.opted.org/publication-guidelines/] or as an informational report or article. Content-specific reviewers will be assigned to support atypical submissions.

The submission deadline for this theme edition is January 2024. Send your cover letter with an intact and blind copy of your manuscript to submissions@opted.org. Email *Optometric Education* Editor Keshia Elder, OD, MS, MS, FAAO, if you have any questions about the theme edition.

Editorial

As My Tenure as Editor of this Journal Comes to an End …

Aurora Denial, OD, FAAO, DAAO (OE) | *Optometric Education: Volume 48 Number 3 (Summer 2023)*

Aurora Denial, OD, FAAO, DAAO (OE)

This is my final editorial as Editor of *Optometric Education*. I started this journey as Associate Editor in 2009 and moved into the role of Editor in 2010. The saying “it takes a village” certainly applies to publishing a journal. As Editor, I worked with a team of people whose dedication and hard work led to the successful publication of 39 issues of the journal in the past 13 years.

Many Thanks

I would like to thank the former and current Executive Directors of ASCO, Marty Wall, MPA, CAE (Ret.), CPC, and Dawn Mancuso, MAM, CAE, FASAE, for their unwavering support. The behind-the-scenes ASCO staff led by Communications Director Kimberly O’Sullivan were always available and a pleasure to work with. Independent contractors Kerri McTigue (graphic designer), Mia Jordan (website developer) and Desiree Ifft (managing editor) have been instrumental in the production of the journal. I have worked most closely with Desiree. She is highly organized, a great editor, communicates well with authors and reviewers and has been an enormous support and help to me. Desiree’s expertise and skills are a critical component in publishing the journal.

I also thank all current and former volunteer members of the Editorial Review Board, whose work ensures the quality of the journal. Reviewing a manuscript for publication often takes several cycles of revisions, is time-consuming and by the time of publication greatly appreciated by the authors. Finally, I would like to thank all of the contributors to the journal. Without this group there would be no journal to publish. I commend the authors who submitted articles that were not published. Successful publications involve a learning curve that is often frustrating. Feedback provides an opportunity to grow, develop and improve.

Over the past 14 years, it has been a privilege to oversee the journal and contribute to the optometric education literature. My first task in 2010 was to increase inventory and get faculty excited about scholarship. Faculty are often not formerly trained in research and scholarship.

Interest is always present, but many are also intimated. Over the course of a few years, I visited 20 schools and colleges of optometry. This was a great opportunity to meet faculty and discuss scholarship opportunities. In 2011, ASCO initiated the Educational Starter Grants. These grants (supported by The Vision Care Institute, LLC, an affiliate of Johnson & Johnson Vision Care) funded short-term projects and were designed to help faculty get started. The grants were able to support many faculty members. In addition to increasing inventory, the journal introduced new venues for publication such as Educator's Podium and Educator's Toolkit. The journal also tackled important issues such as interprofessional education, diversity, and cultural competency in the form of theme editions. The writing of editorials produced a small amount of stress for me but also gave me the opportunity to communicate my thoughts and ideas to the education community. I enjoyed writing all of them. The two that received the most reader response were "Should We Require Class Attendance?" (Fall 2015) and "The Four-Year Optometric Education Program: Something's Got to Give" (Summer 2021).

I Leave You in Capable Hands (and with an AI-generated poem)

Looking to the future, I am thrilled that one of the journal's Associate Editors, Keshia Elder, OD, MS, MS, FAAO, will be assuming the role of Editor. I have worked with Dr. Elder over the past year to ensure a smooth transition. Dr. Elder is the current Dean of the College of Optometry at the University of Missouri-St. Louis. She holds two Master's degrees, one in Vision Science and a second in Instructional Design, from the University of Alabama at Birmingham in addition to her Doctor of Optometry degree. She has been on the journal's review board for many years and is always willing to help with additional projects.

I predict that the future of the journal will include significant scholarship in the areas of artificial intelligence (AI) and mental illness in the student population. AI will have a major impact on the practice of optometry as well as the education process. How to use AI in an ethical and efficient manner will be a hot area for education research. AI is an amazing tool that requires a sophisticated reader with good critical-thinking skills to utilize it to the maximum. It is disruptive technology with the potential to change the way we educate. Over the years we have also seen a rise in mental health issues that impact our students and the learning environment. How we teach and educate will need to take this into consideration. We cannot change the culture of a generation of students. We will need to provide a learning environment that supports them while maintaining high education standards.

In closing, I thank ASCO for its enormous support and giving me the opportunity to contribute to the profession over the past 14 years. And, thank you AI for generating a poem reflecting on the meaning of an editor:

Being an editor is a privilege
To contribute to the field
It's a way of advancing science
And making discoveries revealed

I am the editor for a journal
That educates the optometrists
I select and publish the articles
That teach them how to practice best

I cover topics from the basics
To the latest innovations
I aim to provide a resource
That supports their education

I work with authors and reviewers
To ensure the quality and relevance
I also seek to foster a dialogue
And a community of peers

I am the editor for a journal
That educates the optometrists
I hope to contribute to their growth
And their professional success

Dr. Denial is a Professor and Chair of the Department of Primary Care at New England College of Optometry and a Clinical Instructor at a community health center in Boston. She served as Editor of Optometric Education from 2010-2023.

Educator's Podium

WCO Advocacy and Leadership Program Imparts Valuable Knowledge and Skills

Emiliano Teran, PhD | Optometric Education: Volume 48 Number 3 (Summer 2023)

Emiliano Teran, PhD

Optometry holds immense potential to change lives by improving vision health, particularly among vulnerable groups such as children and the elderly. As a faculty member of an optometry program in Mexico, I have a strong interest in promoting initiatives that benefit vision health. This is what drew me to the Optometry Program in Advocacy and Leadership (OPAL) course offered by the World Council of Optometry (WCO). OPAL is a 10-week program offered to members of WCO. It is designed to provide optometry professionals with a comprehensive understanding of the principles and practices of advocacy and leadership so they may advocate for optometry on the global, national or local level. The program expanded my knowledge and skills in these areas, which will enable me to be a more effective faculty member and champion for children's vision issues. I have participated in numerous initiatives aimed at promoting children's vision health and overall wellness, and OPAL was an opportunity to further my commitment.

Taught by experienced educators Don Lyon, OD, MS, and Luisa Casas Luque, OD, PhD, the 2022 OPAL course covered a wide range of topics including strengths-based leadership, stakeholder engagement, message development and risk management. A combination of online lectures, live events and engaging activities created a dynamic learning atmosphere.

Opportunities and Insights

Meaningful opportunities and insights I gained from the experience included the following.

Connecting with a diverse group of optometric professionals

The WCO OPAL course provided a rich opportunity for me to connect with a varied group of global optometric professionals. Prior to the course, I often found myself working in solitude and facing difficulties accessing relevant resources and support. Through OPAL, I connected with classmates from diverse nations and learned from their experiences and perspectives, which helped me understand my work in a wider context.

The chance to interact with seasoned instructors, who possess vast knowledge and expertise in the field, was another remarkable aspect of the course.

A standout aspect of the course was working with my mentor Sandra Block, OD, MEd, MPH, FAAO, FCOVD. Her support and expertise proved to be invaluable as I progressed through the material and strove to reach my advocacy targets. Dr. Block's guidance was instrumental in my success and I am thankful for her mentorship during the program.

I am grateful to have learned and been motivated by all of these individuals. This exceptional opportunity has already made a significant impact on my work, and I am confident that the connections made through the course will be invaluable as I progress in my career.

Understanding and leveraging my strengths as a leader

A key result of the OPAL course was recognizing and utilizing my personal strengths as a leader. Before the course, I did not give much thought to how my individual strengths may affect my leadership approach. But through the course's concentration on strengths-based leadership, I was able to identify my unique strengths and contemplate more deliberately how to use them for a positive outcome. For instance, I realized that one of my assets is the capability to establish strong connections with others and motivate those around me. Knowing this has helped me to be a more productive faculty member, as it enabled me to cultivate a sense of community and collaboration within my program.

Connecting with key stakeholders

The OPAL course also provided participants with practical tips and strategies for success. One especially beneficial lesson was the process of identifying and connecting with key stakeholders. To advance an advocacy cause, it is important to recognize stakeholders and form meaningful connections with them. OPAL educated attendees on techniques and tools for achieving this goal such as stakeholder analysis and stakeholder mapping.

I am eager to apply the skills I gained in stakeholder engagement to form stronger partnerships with local organizations and community leaders. These alliances will be crucial in determining the needs of the children in my community and creating tailored solutions.

Crafting effective messages

Additionally, the course taught me how to communicate effectively through message crafting. I learned how to craft clear, concise, impactful messages using language and storytelling. I aim to use these newfound skills to reach a wider audience and inspire more action surrounding my cause of promoting children's vision health.

A Worthwhile Investment in the Future

I am grateful for the fulfilling and transformative experience of OPAL. Being part of a community of like-minded individuals dedicated to creating positive change was truly enriching. While the journey of creating change and making an impact is not always smooth, OPAL has equipped me with the necessary strategies and confidence to tackle challenges. I learned the significance of resilience and discovered ways to remain determined and enthusiastic even when faced with obstacles. The skills and knowledge I gained will be priceless as I continue working toward better vision health for children in my community and making a difference in the world.

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