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Cognitive Strategies to Improve Patient Care in Cross-Cultural Settings

ASCO Report: Diversity in our Colleges and Schools of Optometry

Developing Military Cultural Competency to Better Serve Those Who Have Served Us

ASCO Report: The Path to Cultural Competence in Optometric Education and Practice: A Timeline to Multicultural Clinical Excellence

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Cognitive Strategies to Improve Patient Care in Cross-Cultural Settings

Guilherme Albieri, PhD, Jennifer Hue, OD, MS, FAAO, and Sarah Gleason | Optometric Education: Volume 43 Number 1 (Fall 2017)

Introduction

Culturally appropriate patient care has been shown to result in positive health outcomes.¹ Without culturally competent care — the ability to accept diversity and adapt to unconventional requests — cross-cultural experiences involving patients and healthcare providers can evoke emotional responses that can be detrimental to patients. Culturally competent care may be difficult to employ because humans inherently have a need to maintain homeostasis and categorize their world. When this equilibrium is disrupted, (i.e., when expectations of actions clash due to differing cultural norms), emotional temperatures may rise, which affects behavior and how practitioners treat patients. Managing patients in a state of heightened emotions can cripple relationships and negatively impact patient care. We propose that behavioral changes through the utilization of cognitive, top-down strategies can prevent progression to a negative emotional response, and, therefore, improve patient care in a cross-cultural encounter.

Studies^{2,3} have supported that in order for healthcare providers to enact this change in behavior and achieve a cultural competence of awareness and sensitivity, training should be initiated at the student level. Optometric educators strive to increase their own cross-cultural competency³ and recognize the responsibility to ensure that graduates develop cross-cultural competencies. Although educational strategies are in place, current methods are insufficient to address the increasingly diverse society.⁴

The cultural competency curricula in optometry schools typically employ lectures, workshops, videos and role-playing with the focus on changing behaviors.⁵ A common thread among the curricula is focusing on the need for the practitioner to recognize, accept and embrace cultural differences, be empathic, and offer care that is in alignment with patients' beliefs and values. We argue that although these are valuable end goals, this approach to educating students often neglects determining the root cause of problems associated with cultural differences, and, furthermore, fails to offer effective strategies for managing the resulting emotional responses. Thus, the purpose of this paper is to offer optometric educators a framework based on the latest research in cognitive psychology and neuroscience to help address the following questions:

1. Why do we fail to accept and appreciate cultural differences?
2. What are natural emotional reactions during cross-cultural encounters when values and behaviors differ from our own?
3. What strategies can we use to self-regulate when strong emotional reactions arise?

Culture is knowledge stored in our brains. Aversion to differences and in-group preference are also processed through our brains. For this reason, we propose a framework that employs the brain in solving the conflicts that it initially developed. This paper uses ideas derived from cognitive psychology and neuroscience to propose a theoretical model for emotional regulation to assist practitioners in effectively managing emotional responses evoked by differences in cultural orientations. The goal of this paper is to provide solutions for calibrating the emotional temperature, ensuring more effective care.

Culture and Care

Effective care depends on patients' adherence to a treatment plan, which in turn depends on patients' levels of trust and concordance (agreement between doctor and patient).⁶ Differences in cultural values and beliefs may increase the emotional temperature during cross-cultural encounters, evoking emotional responses that can influence the doctor-patient relationship and affect trust levels. Although it has been shown that doctors display a range of emotional responses, both positive and negative, when treating various ethnic groups,⁷ the majority of doctors tend to show less empathy to those belonging to unfamiliar cultural groups.

Previous studies^{7,8} have focused on the impact of cultural values on treatment disparities, patient satisfaction and the quality of doctor-patient interaction. However, research examining the effective regulation of culturally evoked emotional responses is lacking.

This discussion is increasingly relevant because of changing demographics and the inevitability of encounters between patients

and doctors from different cultural backgrounds in modern multicultural societies. For the sake of illustration, consider three cross-cultural cases:

Case A: Horacio, a 65-year-old male patient complains about eyestrain, headaches and feeling tired after long periods of study. He visits an optometrist because he thinks his current prescription is no longer accurate. His intuition is correct. His new prescription is OD +6.00D, OS +8.00D with +2.50 ADD. Concerned about the thickness of the lenses he will have to wear, he asks the optometrist to lower the prescription. The doctor is shocked and demonstrably irritated by the request. *How dare the patient try to negotiate the prescription with me?*, she asks herself with indignation. Horacio explains that he is a religious leader in his community and is afraid his constituents will perceive his new thick lenses as a sign of rapid aging.

Case B: The doctor goes over his schedule for the day and realizes that Norma, a 58-year-old female, has a follow-up appointment at 2:30 p.m. His heart sinks. The last time Norma had an appointment she was 30 minutes late and brought her granddaughter, daughter and daughter-in-law to the appointment. The entire family came into the appointment room. The granddaughter, as usual, spoke on Norma's behalf even though Norma's English is fine. The back and forth between the family members greatly delayed the examination.

Case C: Isabelle is an indigent patient from a rural part of an underdeveloped country in South America. She stopped taking her medicine because her spiritual healer assured her that intraocular pressure could be controlled through his methods. The doctor is visibly irritated when he hears this and asks Isabelle if she wants to go blind. He later realized his approach to the situation was too aggressive.

Culture and Differences

Culture is responsible for major behavioral variations in human societies.⁹ It is a set of shared beliefs, values and assumptions about the world that helps individuals solve adaptive problems, including how to communicate and how to relate to one another and to the natural world. Variation in behavior is the hallmark of cultural diversity. Yet, humans are not keen on understanding and embracing differences. Although we may consciously and publicly display the intention to be accepting and tolerant to cultural differences, the human brain is judgmental, discerning and categorizing.

We argue that two main processes in the human brain have a direct impact on our ability to accept and deal with cultural differences. The first process is the brain's need to maintain cognitive homeostasis (internal harmony). Cultural differences upset internal balance, which leads to a change in behavior that may be unfavorable in a professional setting. The second process is the brain's need to categorize the world and attribute value to these categories. These two processes influence our emotional reactions to cultural differences and consequently have a direct impact on behavior and patient care.

The Need for Internal Balance (Homeostasis)

Homeostasis is the process of internal regulation to stay in equilibrium. Maintaining this balance is part of human nature and a neurological adaptation necessary for survival.¹⁰ The most basic, primitive parts of the brain are constantly scanning the environment in search of information that upsets internal balance. When disconfirming information is detected, a motivational emotional response prompts the individual to seek corrective action in an attempt to restore the original state of equilibrium.¹⁰

Internal balance may be disrupted by internal threats, such as hunger and thirst, as well as external threats such as the imminence of emotional distress. Cross-cultural interactions are a prime example of an external disruption that can upset homeostasis through emotional distress, such as when one's belief system is contradicted.⁶ For example, anxiety arises when well-established and commonly accepted cultural norms are broken (e.g., being late for meetings, displaying too much emotion).

Threats to homeostasis trigger an impulsive "fight, flight or freeze" response from the "emotional brain" (limbic system).⁷ The threats put the brain in a state of arousal, bringing the emotional temperature to alarming levels. In a "fight" response, one may become frustrated and act defensively by effusively defending a viewpoint. In a "flight" response, one may avoid the confrontation and not solve the problem. In a "freeze" response, one may not know how to act or what to do. None of these responses is ideal in a professional context. Practitioners are expected to act rationally, remain under control, and, most importantly, give the highest level of care to the patient.

The Need for Categorization

Categorization is the basis for prejudgment and it helps humans to make sense of the world.¹¹ People often stereotype others as representatives of social groups rather than individuals. These categories often associate in- and out-groups with specific attributes. For instance, Hispanics are perceived as being late, Asians as being diligent and studious, the elderly as being less

physically fit, women as more emotional, etc. While certain categorizations, associations and attitudes towards in-groups and out-groups are conscious, some are subconscious (implicit bias). These classifications cause potential for errors in judgment that may lead to offensive behaviors.

Cuddy et al.¹² suggest that discrimination against others based on categorization of group membership is a universal trait. The innate human desire to create social bonds (to affiliate and form communities) and to conquer (achieve dominance within a social hierarchy) are basic, universal human goals and aspirations. In pursuing these basic motivations, it is vital to be able to categorize others into in-groups and out-groups, an adaptive feature of the human brain.¹³ These categories are formed either through experience or social transmission. Once set, they are stable and difficult to change.

Categorizations impact emotional states and behavior. The Stereotype Content Model (SCM)¹⁴ postulates that societal groups are appraised by two main categories: warmth (a friend-foe judgment) and competence (capability judgment). These judgments of warmth and competence elicit emotions towards in-groups and out-groups. These emotions can be positive (e.g., pride and admiration), negative (e.g., envy, disgust, pity) or mixed.¹⁴ For instance, the elderly may be categorized with feelings of warmth but with lack of competence due to the mental and physical fragility associated with advanced age (pity); Asians may be categorized as low in sociability (low in warmth) but as being competent (admiration).

Categorization is a cognitive strategy. Prejudice, stereotyping and dehumanization of individuals based on group memberships have definite neural markers, namely reduced activity in the executive and rational part of the brain (prefrontal cortex) and increased activity in the emotional parts of the brain (limbic system).¹¹ Neuroscience has long established that a region of the prefrontal cortex, the medial prefrontal cortex (mPFC), is activated when people think about others they care about and interact socially.

It has also been established that when individuals think or interact with out-groups labeled as low-warmth/low-competence, activation of the mPFC is low. Low-warmth, low-competence out-groups are often objectified. Severe prejudice against out-groups reduces humans to the lowest possible levels, dehumanizing the individual, leading to thinking about or behaving towards the individual as “less than a person” or as an object.¹⁴ This largely explains how people can act towards members of out-groups with disdain, abuse, hatred and violence. An example of the consequence of this prejudice is demonstrated in Case C: Isabelle is indigent and believes in spiritual healers, characteristics that may be perceived by the nurses, staff and doctor as being low-warmth and low-competence. In return, the patient may be treated with disdain.

In a healthcare setting, doctors categorize patients based on ethnic background, race, age and socioeconomic status. Similarly, patients come with preprogrammed categories on how a doctor should look, speak and behave. Any variation from pre-established categories introduces potential for distrust. Depending on the associations that are made through categorization, the doctor-patient relationship may vary considerably.

The Case for Top-Down Regulation

So far, we have discussed the need for the brain to achieve internal harmony and to categorize. Disruptions to these needs, such as cultural differences that lead to differentiation between in- and out-groups, can evoke strong emotions such as frustration and disgust.

Top-down strategies and homeostasis

To achieve emotional homeostasis, impulse control through self-regulation is fundamental. Emotional responses are associated with the limbic system, a more primitive structure in the brain. Emotional control, on the other hand, is associated with the pre-frontal cortex (PFC), the more recently evolved, outer region of the brain. Thus, a plausible solution to cross-cultural encounters is to implement “top-down” strategies, moving responses from the more primitive limbic system, which is engaged in automatic emotional, impulsive responses, to the PFC, where the ability to reason resides.¹⁵

Top-down strategies and categorization

Forgoing preconceived notions and firmly established stereotypes is essential to proper patient care. However, attempting to reverse this way of thinking is challenging. In the case of categorization, conceptual associations (typical of stereotypes) are learned through long-term exposure to categorical information. Inroads have been made to change implicit learning by pairing members of out-groups with positive images that are counter to the stereotypical view of that group.¹⁴ For example, to undo the stereotype that Asians are low in sociability, one would need encounters with or exposure to Asians who demonstrate extraversion and sociability.

Although changing implicit learning can be achieved, it is challenging, particularly in a cultural setting in which implicit

stereotypes are reinforced. Ames and Fiske¹¹ propose that undoing intergroup associations is a less effective strategy compared to cognitive control of behavior because it requires specific exposure for each category. Therefore, top-down strategies for cognitive emotional regulation can be more effective in counteracting the downfalls of categorization.

Strategies for Cognitive Control of Emotions and Behavior

Advances in research in psychology and neurobiology that focus on self-control offer important insights for the healthcare practitioner on strategies to achieve emotional homeostasis through self-regulation.^{16,17}

Scholars at the University of Chicago¹⁶ developed a two-stage model to explain our failure to execute self-control. Stage 1 is the failure to recognize conflict between impulses and goals. For instance, practitioners may fail to recognize that getting angry with a patient that has different cultural values goes against her goal of providing excellent care. Stage 2 involves implementing actions to avoid succumbing to impulses. We typically fail in one or both stages of the model. To address these shortcomings, neuroscience and psychology research suggest two distinct strategies: 1) monitoring for sources of conflict [e.g., implicit bias], and 2) top-down cognitive control of behavior. A survey of such strategies is presented below.

Top-down cognitive solutions

Solution 1: monitoring and labeling

To change behavioral responses, the behavior of concern must be noticed and monitored.¹⁸ Noticing and monitoring, according to models of cognitive control of behavior, are the first steps in information processing.¹⁷ For instance, people save funds for the future when they actively monitor how and where they spend their money. In the case of cross-cultural relationships, when sources of conflict and anxiety (e.g., differences in values) are identified and monitored, responses can be actively regulated. Change in behavior fails when noticing and monitoring fail.¹⁶

The challenge in fostering intercultural relationships is knowing what to monitor. The most important factor to monitor in cross-cultural relationships is one's own emotional responses to out-group members. Are there certain groups, behaviors, values or way of thinking that irritate, annoy and innerve you? Signs to look for include the cues and antecedents to these feelings, including people, time and location when these feelings arise. Honest and sincere reflection is essential to pinpointing the source of the emotional arousal.

Monitoring moves decision-making from the reactive, emotional part of the brain (limbic system) to the executive, rational part of the brain (PFC). Recent research has shown that by increasing activity in the pre-frontal cortex while suppressing limbic activity, emotions can be monitored, and, as a result, labeled.¹⁹ This classification of emotions results in less limbic activity, which helps to prevent an immediate emotional response.

The concept of "theory of mind" also sheds light onto this dilemma. Theory of mind is the ability to understand others' emotions, values, intentions and motivations.¹⁵ By better understanding another person's viewpoint, including value system and beliefs, one can monitor and use this information to make better decisions in social encounters.¹⁵

Cultural value dimensions systems help us identify and understand how and which cultural values and beliefs influence and shape behavior. Various systems are available in the literature, including frameworks by Hofstede and Trompenaars and Hampden-Turner.²⁰ The latter system is based on seven value dimensions, which are universalism vs. particularism, specific vs. diffuse, affective vs. neutral, achievement vs. ascription, sequential vs. synchronic, individualism vs. collectivism, and internal vs. external (**Table 1**). Hofstede's system includes low or high uncertainty avoidance, power distance, masculinity and individualism.²¹

Cultural value systems allow us to analyze behavior generated by values on a continuum and create a framework for cross-cultural labels, which can then be attributed to a particular cross-cultural situation. These dimensions provide a point of reference for monitoring what is important for individuals from different cultures, allowing practitioners to identify conflicting value systems and worldviews as proposed by "theory of mind." Upon the recognition of differences, new responses can be

TABLE 1
Comparison of Cultural Values Dimension Systems Developed by Trompenaars and Hampden-Turner²⁰

Dimension	Particularism	Universalism
Individualism vs. Collectivism	<ul style="list-style-type: none"> Individuals are seen as separate entities Individuals are expected to be self-reliant Individuals are expected to be self-sufficient Individuals are expected to be self-reliant Individuals are expected to be self-reliant 	<ul style="list-style-type: none"> Individuals are seen as part of a group Individuals are expected to be interdependent Individuals are expected to be interdependent Individuals are expected to be interdependent Individuals are expected to be interdependent
Internal vs. External	<ul style="list-style-type: none"> Individuals are expected to be self-reliant Individuals are expected to be self-reliant Individuals are expected to be self-reliant Individuals are expected to be self-reliant Individuals are expected to be self-reliant 	<ul style="list-style-type: none"> Individuals are expected to be interdependent Individuals are expected to be interdependent Individuals are expected to be interdependent Individuals are expected to be interdependent Individuals are expected to be interdependent
Achievement vs. Ascription	<ul style="list-style-type: none"> Individuals are expected to be self-reliant Individuals are expected to be self-reliant Individuals are expected to be self-reliant Individuals are expected to be self-reliant Individuals are expected to be self-reliant 	<ul style="list-style-type: none"> Individuals are expected to be interdependent Individuals are expected to be interdependent Individuals are expected to be interdependent Individuals are expected to be interdependent Individuals are expected to be interdependent
Sequential vs. Synchronic	<ul style="list-style-type: none"> Individuals are expected to be self-reliant Individuals are expected to be self-reliant Individuals are expected to be self-reliant Individuals are expected to be self-reliant Individuals are expected to be self-reliant 	<ul style="list-style-type: none"> Individuals are expected to be interdependent Individuals are expected to be interdependent Individuals are expected to be interdependent Individuals are expected to be interdependent Individuals are expected to be interdependent
Diffuse vs. Specific	<ul style="list-style-type: none"> Individuals are expected to be self-reliant Individuals are expected to be self-reliant Individuals are expected to be self-reliant Individuals are expected to be self-reliant Individuals are expected to be self-reliant 	<ul style="list-style-type: none"> Individuals are expected to be interdependent Individuals are expected to be interdependent Individuals are expected to be interdependent Individuals are expected to be interdependent Individuals are expected to be interdependent
Universal vs. Particular	<ul style="list-style-type: none"> Individuals are expected to be self-reliant Individuals are expected to be self-reliant Individuals are expected to be self-reliant Individuals are expected to be self-reliant Individuals are expected to be self-reliant 	<ul style="list-style-type: none"> Individuals are expected to be interdependent Individuals are expected to be interdependent Individuals are expected to be interdependent Individuals are expected to be interdependent Individuals are expected to be interdependent

TABLE 1. Click to enlarge

shaped and implemented. For instance, in Case A, Horacio is acting based on particular and ascriptive value systems, requesting the doctor to make exceptions (particular) because he is a religious leader (ascriptive). Horacio, a Brazilian, also tends to behave on the particular end of the particular vs. universal continuum, whereas Americans (the doctor in Case A) tend to be more universal (i.e., rule-oriented). By understanding and monitoring the situation for different value systems, the doctor could have understood Horacio's viewpoint and devised a compromising solution. Instead, she became frustrated with the request for exceptions and stood her ground more firmly.

In another example, Case B, the doctor was frustrated with Norma because her family's behavior was making the eye exam longer (synchronic cultural orientation, many things happening at the same time). Without having the knowledge to describe and understand what is taking place, his frustration increased. However, by having the label of synchronic vs. sequential available to him, he can classify his patient's behavior as a typical synchronic behavior, leading him to new levels of understanding of the situation at hand. By labeling behavior based on a continuum, and not on absolutes, we can better understand which value system is at play and then plan accordingly in how to better address the situation.

Solution 2: abstract, high-order thinking

Research conducted by Fujita and colleagues proposes that abstract thinking and how we construe and interpret events are essential to self-control.²² They conclude that when people are encouraged to engage in high-level, abstract thinking about why they should engage in desirable actions (for instance, treating patients from different ethnicities with respect) as opposed to how (how do you treat them equally), self-control increases.

Values — both personal and professional — and a sense of duty, as outlined in the professional oath that optometrists and other medical practitioners vow to abide by, are examples of higher-order, abstract thinking. This type of thinking allows practitioners to shift attention from immediate emotional states to a larger framework that speaks to the practitioner's *raison d'être* (reason for being).²³ For instance, a practitioner who is frustrated with a perceived low-competence and low-warmth patient may bring to mind that "all patients should be treated equally."

Solution 3: mental contrasting and implementation intention

Mental contrasting is fantasizing about an outcome and anticipating potential hardships during implementation.²⁴ It is the process of contrasting a desired goal with reality. Studies have shown that mental contrasting is a powerful and effective strategy for goal achievement, and is even more effective when coupled with the mental commitment to pursue a goal, also referred to as implementation intention.²⁴ One very effective implementation intention strategy is the "if, then" strategy. After anticipating the potential issues that may be encountered while pursuing a goal, one anticipates how to deal with these difficulties. "If, then" statements take the form of: If X happens, then I will do Y.

In Case A, let's assume the doctor's goal is to provide excellent care to her patients (fantasizing). Stating an intention, however, is not sufficient. She must then anticipate potential difficulties during implementation, that is, bring her goal to reality. For instance, the reality of cross-cultural encounters is that they can be frustrating and difficult and clash against our value system. Therefore, the doctor could develop an "if, then" strategy to deal with the situation. For example, "If I start to get frustrated, then I will try to identify what cultural dimensions exist." Or, "If I begin to get frustrated with others, then I will remind myself to take a step back and calm down."

Solution 4: reappraisal

Cognitive reappraisal helps us better understand how a problem could have been avoided or better managed. Reappraisal is a technique used to change the meaning of events, which in turn changes the interpretation of and response to the event.²¹ For example, cognitively reappraising an emotionally upsetting image as a neutral image can allow one to overcome the emotional arousal that would have been stimulated by the image.¹⁷ Reappraisal demonstrates a decrease in limbic activity while increasing pre-frontal cortex activity.

In Case A, the provider interpreted Horacio's request as an insult. From the provider's perspective, Horacio was asking for a personal favor and "*just because Horacio is a religious leader that does not give him the right to ask for exceptions or for me to lie,*" the provider thought. In this case, a person can reinterpret a difficult cross-cultural situation by appraising it as a situation typical of cross-cultural encounters when different value systems are at play, and not take it personally. One can *reappraise* a situation as a learning opportunity. In possession of knowledge about cultural values dimensions, one can ask questions such as "why is this person acting in such a manner?" "What cultural value is guiding this behavior?" "What can I learn from this encounter?"

By using the strategies proposed above, the clinician is deliberately moving activity from the emotional to the rational centers

of the brain to deal with emotion-evoking cultural encounters. As a result, he or she can lower the emotional temperature during a cross-cultural encounter and open new paths for communication and understanding. Teaching this generalized approach of regulating emotional responses will impart a skill to optometry students that they can use in any situation. It does not rely on them having had exposure to a patient's particular culture or background.

Conclusion

Cultural differences play a major role in how patients and doctors interact with each other and the environment at large. Often, these differences increase the brain's emotional response and potentially result in negative behaviors that are counterproductive to effective patient care. Because these emotional responses originate as part of the human need to maintain homeostasis and categorize, they can be regulated through neuropsychological strategies. We propose including these strategies in optometry schools' cultural competency curricula to augment the current approaches. Utilizing these generalized strategies (monitoring for implicit biases, abstract thinking, mental contrasting, reappraisal and top-down cognitive control of behavior) can help clinicians and students regulate emotional responses, thereby promoting effective behaviors and ultimately improving doctor-patient relationships and care. The relationship between the emotional brain (limbic system) and the rational brain (prefrontal cortex) in cross-cultural settings requires further understanding. Although the strategies described here have proven effective on an individual basis, additional research is needed to demonstrate that integrating all of these strategies will result in more effective cross-cultural patient care. It is hoped that this presentation of strategies will incite further research into the cultural neuroscience of patient care.

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Developing Military Cultural Competency to Better Serve Those Who Have Served Us

Navjit Sanghera OD, FAAO | Optometric Education: Volume 43 Number 1 (Fall 2017)

Introduction

The military culture is one of unique practices, traditions and beliefs that represent a shared unifying language with a distinct set of guiding principles.¹ For many civilian healthcare providers without any prior military experience, immersion in this cross-cultural environment adds a layer of complexity and possible difficulty to the clinical exam that otherwise may not have been considered.

In recent decades, a cultural gap has developed between civilians and the armed forces. This gap can be attributed to a number of causes, and the most obvious is the decision in 1973 to establish a large, professional, all-volunteer military force.³ This ideological shift created a separation of citizen from soldier. During every previous era, there was a well-known mandate “to serve.” The departure from the tradition of conscription and the delineation between the military and civilian worlds has now been in place for more than four decades. For nearly two generations since the volunteer conscription act was passed, only 0.5% of the population have chosen to voluntarily serve.⁴ This new norm has trickled to government. In 1975, 70% of Congress had served within the armed forces vs. 20% today. The country’s past three presidents had never served in active duty.³

Approximately 80% of current military members are from small populations of multigenerational (legacy) military families. Additionally, nearly half of active duty members originate from only five states (California, Virginia, Texas, North Carolina and Georgia).⁴ The U.S. Census Bureau reports that only 7.3% of all living Americans have served in the military at some point in their lives with the majority being older than age 65.⁵ Though there is an appreciation of those who have served, there is an absence of personal exposure by most citizens and, as a result, a lack of cultural awareness of this group as a distinct minority. Many civilians have never felt the personal impact of our most recent global conflicts or personally known someone who has served. This unawareness and knowledge deficiency has become commonplace with the healthcare sector.

As of 2014, the U.S. Department of Veterans Affairs (VA) estimated that there were 22 million military veterans in the U.S. population. An interim report by the Congressional Budget Office claims that 66% of veterans receive care completely outside of the VA,⁶ while a report by Lee et al. states that approximately only 9 of the 22 million veterans receive care at the VA.⁷ There may be many reasons that veterans seek health care outside of the VA system, including the assumption that they are not eligible, that they do not geographically reside near a VA facility, that their current medical problems are not service-related (therefore not treatable by the VA), or (most notably) the reports of mismanagement, substandard treatment and schemes that have resulted in lack of quality health care and access. For example:

- In 2010, new-patient applications were found stuffed in the drawers of VA processors’ desks.
- In May 2014, the VA’s Inspector General launched an investigation after managers of a VA hospital in Phoenix, Ariz., were accused of **concealing months-long wait times**. The probe eventually widened to include **26 medical facilities**.
- In 2015, it was reported that more than 307,000 veterans may have died before their applications to receive care at a VA hospital were processed.
- More than 800,000 records were stalled and possibly 10,000 records were deleted between 2010 and 2015. One applicant had been reportedly waiting for almost 14 years to be considered for VA health care.⁸

The intense pressure faced by VA facilities is the result of a number of interlinked factors:

- The VA has struggled to meet unprecedented demand as improved medical care during combat has left more soldiers with lifelong wounds.
- Veterans of the Vietnam and Korean wars are living longer and require more care.
- While the injuries sustained are more profound, the VA’s technical patient management systems are out of date, leading to considerable duplication, delays and errors.

Because increasing numbers of veterans and their families are reintegrating into civilian life, it is likely that most healthcare professionals, including optometrists, will provide care for them during their careers. As a result, the Joining Forces initiative launched in 2011 to help bridge the gap between civilian providers and military patients. This initiative emphasized the

importance of providing proper care to veterans, service members and their families as well as the significance of military cultural competency. Whether military culture or pathology-specific curricula were being addressed was evaluated at the source of medical training. A nationwide survey was conducted at more than 100 medical schools and health systems to determine the extent to which future physicians were being trained to care for military personnel.⁹ Of the 104 participating schools, only 21.2% included any material on military culture and only 31% indicated that their curriculum provided training in military cultural competency.⁹

Another study showed that any discussion of traumatic brain injury (TBI) or post-traumatic stress disorder (PTSD), two of the most predominant diagnoses post-deployment, was limited to 56.7% and 47.1%.⁶ In addition, with regard to healthcare-provider awareness of military status in patients, it was found that only 39% of providers outside the VA/Department of Defense (DoD) were screening for military service.⁶ These numbers are disheartening because such a simple question about a patient's military history can affect how a provider conducts an exam, determines common pathologies and considers evaluation/treatment techniques.

To practice cultural and linguistic competency is to tailor the delivery of health care to the patient's background, taking into account, among other characteristics, his or her gender, age, ethnicity, socioeconomic status and religious values. It involves the knowledge that such factors shape a patient's perceptions about health, establish expectations for care, and ultimately guide medical decision-making. With the continued concerns about disparities in health care, and the need for healthcare systems to accommodate increasingly diverse patient populations, cultural and linguistic competency has become a matter of national concern and a cornerstone of patient-centered care in recent years. The functional definition of cultural and linguistic competency is "the integration and transformation of knowledge about individuals and groups of people into specific standards, policies, practices, and attitudes used in appropriate cultural settings to increase the quality of services; thereby producing better outcomes."¹⁰ It is within the capacity of individuals and organizations to work and communicate effectively in cross-cultural situations.

Competency occurs through adopting and implementing strategies to ensure appropriate awareness of, attitudes towards, and actions about diverse populations' cultures and languages. Cultural and linguistic competency can better prepare the optometric healthcare provider and solidify the foundation for proper management and care. It can also help to ensure effective, understandable and respectful care for all patients, improving patient satisfaction and overall health outcomes.¹¹ Cultural competence has been deemed so important that the new edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM) includes cultural considerations with each diagnosis.⁶ The process of cultural competency includes making progress towards adopting certain principles with the understanding that competency is a series of stages of development and a lifelong commitment to learning rather than a specific achievement or one single knowledge point.

To better interact with veterans in a culturally competent manner, clinicians must first expand their knowledge and comprehend how military service can potentially affect military personnel, families and veterans.¹² As noted by Hall, "Unless we understand their language, their structure, why they join, their commitment to the mission, and the role of honor and sacrifice in military service, we will not be able to adequately intervene and offer care to these families."¹³

Military Structure, Culture, Values and Challenges

Military culture is unique in that it is defined by its organizational structure, rules and framework, which self-regulate its members on a daily basis.⁹ As a very brief introduction, there are three major departments, the VA, the DoD, and the Military Departments. The VA is responsible for providing vital services such as healthcare, benefits programs and access to national cemeteries to former military personnel and their dependents. The DoD is the organizing body in charge of the Military Departments, which are the armed forces branches that include the Air Force, Army, Marine Corps, Navy and Coast Guard. The DoD is also responsible for providing the military forces needed to deter war and protect the security of our country.

Though the missions and values of the armed forces branches are similar, each has its own subculture² and serves a different purpose. Each branch has active and reserve components, with active duty military personnel serving full-time and reserve and guard members typically serving part-time. Full-time military members usually live at a military installation and often focus on their duties full-time, while reserve members face the challenge of managing both their civilian and military duties between the times they are called to active duty. Service members can either choose to enlist (minimally requires a high school diploma or equivalent) or accept commission as an officer (minimally requires a bachelor's degree).¹² The duties expected of members vary depending on military designation and whether the member is an officer or enlisted personnel.

Each branch has a hierarchal rank or grade system that outlines each person's position, authority and pay. This hierarchal system helps to define the chain of command for seniors and subordinates. As a result there is a huge component of trust — trust that the senior has the greater good in mind for all, trust that the mission (no matter the sacrifice) is necessary, and trust

that the subordinate will follow through on orders with obedience and discipline to successfully complete the mission at hand.¹² Although there are great attempts to maintain standardization in the military, large differences exist among its members. To begin, the appeal of joining the service varies from member to member. Studies reveal that members join for different reasons; risk, patriotism, financial security, benefits, challenge, adventure, fidelity and dignity (to name a few), with the latter two being the most common.^{12,14,15} The personal cultural influences also vary immensely. Each individual brings his or her own sense of values, norms, ideas and meanings.¹² In order to unify the culture, the military uses structure and basic training whereby new recruits are introduced to new norms, language, codes and identity through vigorous instruction,¹² with the hope that the recruit will relate to his/her new military culture more than his or her previous civilian culture. Once roles are more defined and recruits' occupations are chosen, members may begin to relate more to their specific occupation within their branch, creating yet another subculture.

Finally, multiple deployments with combat exposure lead to a huge contrast with that of civilian culture and life. Military members are expected to deploy at any given time, which results in a constant state of flux with schools, friends and simple daily routines.⁶ Military families are accustomed to quickly changing their lives and quickly accepting new members and providing a support framework. Despite this sense of community, military families face many challenges. The constant flux of members leaving on deployment leads to a greater demand on military spouses, who must disproportionately increase their roles within the household and manage the family as a single parent. This can lead to increased parental stress, child behavioral problems, healthcare utilization, child maltreatment and mental health problems.¹⁶ Upon a member's return, the challenge of transitioning back into the pre-deployment family structure can be difficult and compounded by combat-related physical and mental health challenges. For some members, returning may mean separation from the military and the challenge of reintegration into the civilian community where there is less formal structure and access to support and services, an overall loss of identity, and a lack of knowledge by civilian providers of the potential effects of their service on their health and wellness. For many returning veterans, it has been years since they were part of civilian society.¹²

Consideration of the military culture, structure and values can allow healthcare providers to better serve those who have served our nation.

Clinical Considerations in the Context of the Military Individual

Common diagnoses

It is the responsibility of optometrists to provide care to the best of our ability within our scope of practice, but also to provide patients with the proper resources and referrals if necessary. Consideration of military culture can help contextualize patient symptoms, aid treatment planning and ultimately improve health outcomes.¹⁷

Unlike previous generations of veterans, modern-day veterans have had multiple (as well as longer) tours of duty with exposure to modern warfare-related injuries and illnesses. This results in medical histories and needs that are more complex than those of previous generations. Veterans returning from combat have a constellation of health concerns, including physical, psychological and psychosocial issues, which persist long after they have left the battlefield. Veterans have also been shown to be at higher risk for conditions specific to their population and their particular wars. In a recent audio podcast, U.S. Sen. Tammy Duckworth (D-IL) discussed the ongoing concern about lack of knowledge among civilian healthcare providers about common service-related illnesses.¹⁸ She shared the example of patient in his 60s who visited a civilian doctor and was diagnosed with diabetes mellitus (DM) and prostate cancer. While the patient will most likely receive the best of care for both illnesses, he would have been evaluated differently had he been seen at a VA facility. Because DM and prostate cancer are commonly linked to Agent Orange exposure, he would have been asked whether he was a Vietnam veteran and further evaluated for other related diseases.

The stigma of not being "tough enough" or "weak," along with a negative perception of complaining, can lead members of the military to downplay illness, which can further delay diagnosis, treatment and recovery. For this reason, it is essential for providing proper care and initiating proper referrals that doctors are able to identify and assess the most common service-related health concerns, ocular and non-ocular.

Military members may present with a multitude of issues, some of which may be obvious, e.g., amputations, visible scars, hearing impairment, or gait or balance issues, but others that may be invisible to a clinician. TBI has been labeled as the "signature wound" of the most recent wars due to the nature of the conflicts.¹⁹ The Defense and Veterans Brain Injury Center recently stated that 352,619 military members were diagnosed with TBI from 2000-2016 (Q1-Q2).²⁰ Although much effort has been made to improve diagnosis, TBI can still remain undiagnosed and its effects can linger for months to years after the initial injury. Due to the mechanism of the injury, the resulting non-ocular symptoms of TBI can present in any combination of chronic pain, systemic problems, or problems with cognition, sensory processing, communication and behavior.²¹ A study by Goodrich

et al. found that the most common self-reported visual complaints with TBI are blurred vision, sensitivity to light, missing parts of vision, bumping into objects or walls, blurred reading vision, or difficulty reading continuous text.²² Therefore, it is no surprise that the most common ocular diagnoses in the acute or chronic phase are convergence insufficiency, accommodative insufficiency, pursuit/saccadic dysfunction, fixation instability (inability to maintain steady fixation on a single stimulus) and strabismus.¹⁴ Based on a retrospective analysis of the records of 160 patients with TBI, Ciuffreda et al. reported that 90% had oculomotor dysfunction, such as deficits in vergence (56.3%), accommodation (41.1%) or version (51.3%), and strabismus (25.6%).²³ These residual visual sequelae are vast, but within the scope of optometric management and treatment.

Other invisible mental health issues include depression, anxiety, suicide risk and PTSD.¹⁹ PTSD has been shown to affect an estimated 11% to 20% of veterans of Iraq and Afghanistan combat, 30% of Vietnam War veterans and 10% of Gulf War veterans.²⁴ This is concerning, as many veterans will choose to self-medicate with drugs or alcohol to alleviate symptoms leading to lifelong alcohol and substance abuse.²⁵ PTSD can cause great emotional withdrawal, decreased ability to communicate in an effective way, and less intimacy. Some veterans may become overly attached to their spouse in an attempt to cope with their experiences while others may avoid interaction altogether.¹² In more than 70% of couples in which a veteran is diagnosed with PTSD, significant relationship distress has been reported. In contrast, it has been reported in only 30% of couples in which a veteran does not have PTSD.^{26,27}

Military sexual trauma (MST) is a common problem reported by 6.8% of women and 1.8% of men. The actual numbers are estimated to be much higher, i.e., 20-30% of women and 2-4% of men.¹⁹ The 2015 Military Sexual Violence fact sheet²⁸ includes the following statistics:

- 47,000 sexual assaults were reported in 2014 alone.
- 1 in 7 victims were assaulted by someone in their chain of command.
- An estimated 85% of victims did not report the crime.
- 62% who did report a crime faced some level of retaliation from their superiors and commanders.
- 1/3 of the above referenced victims were discharged within 7 months of making a report.

MST can lead to a unique combination of psychological issues such as PTSD, depression, anxiety and substance abuse,²⁹ more commonly in women than in men. Women veterans present their own unique set of risks and issues. In addition to being at a higher risk of sexual assault, they are more likely to suffer from depressive disorders,³⁰ obesity and chronic smoking, and lead sedentary lifestyles compared to their male counterparts.

Service in certain parts of the world can also pose increased risk for infectious diseases such as malaria and tuberculosis as well as parasitic infections, some of which may not manifest until years after exposure.³¹ Combat exposure can increase risk for social exclusion, criminality, homelessness, self-harm, substance misuse, unexplained medical complaints, and mental illness.³² When healthcare providers are aware of the most prevalent illnesses and chronic injuries among military members and veterans, health outcomes can be improved.

Clinical examination

A culturally competent doctor-patient conversation must be open to the potential effects of military service on patient health. As discussed previously, a simple question about prior military service can change the direction of the clinical examination markedly for the patient and optometric provider. "Are you currently serving or have you ever served in the military?" is a simple and effective "ice-breaker" question. If the veteran is not apprehensive and both parties are comfortable, a more focused military history should continue and also include specific questions^{1,25} such as:

- In which branch of the armed forces did you serve?
- What was your specialty while in the service?
- Where were you stationed?
- Were you ever deployed?
- Were you ever engaged in combat or exposed to any blasts?
- How have things been going for you since leaving the military?

Not all military patients will present with a history of TBI, but given its high prevalence in the veteran population, it should always be considered as a potential cause of symptoms. A streamlined and structured approach should be taken to evaluate this type of patient, as the histories can be very complicated.

Optometrists who do not otherwise have experience with TBI may struggle with which direction the examination should take. Ciuffreda and Ludlam³³ present a simplified and systematic approach to the clinical management of TBI patients for the optometric clinician. Their four-tiered approach is briefly described below, but more detailed information can be found in their

article “Conceptual Model of Optometric Vision Care in Mild Traumatic Brain Injury.”³³ Information can also be found on treatment considerations for each potential diagnosis. This guide is meant to address the TBI patient, beginning with basics such as a proper refraction, binocular testing and ocular health examination and ending with non-vision-based problems. Treatment considerations should be given to all aspects of the TBI patient. Even a non-vision-based problem such as short- or long-term memory loss can lead to difficulties with vision-related rehabilitation due to poor comprehension or understanding.

Tier 1: The Basic Optometric Vision Examination

- assessment of refractive status
- assessment of binocular status
- assessment of ocular health status

Tier 2: Oculomotor-Based Vision Problems

- assessment of versional eye movements
 - fixation
 - saccades
 - pursuits
 - vestibular
 - optokinetic systems
- assessment of vergence eye movements
 - accommodative vergence
 - AC/A ratio
 - fusional vergence ranges (distance/near)
 - phorias (distance/near)
 - vergence facility
 - near point of convergence
- assessment of accommodation
 - amplitude of accommodation
 - lag of accommodation
 - relative accommodation
 - accommodative facility

Tier 3: Non-Oculomotor-Based Vision Problems

- abnormal spatial localization
- photosensitivity
- motion sensitivity
- vestibular dysfunction
- vision field defect
- visual information processing dysfunction

Abnormal spatial localization can mean a shift in one’s orientation and localization of straight ahead. These patients may have difficulty with ambulation and localization of objects. They may also present with visual neglect or post-trauma vision syndrome. Though there are multiple methods to formally measure abnormal spatial localization, simply observing the patient

as he or she enters the room for balance, gait issues, and posture while standing and in the exam chair can help to diagnose spatial localization problems. Yoked prisms can be used to optically displace the visual field so the subjective vs. objective directional mismatch is reduced. Yoked prisms are usually placed horizontally but can also be placed vertically or obliquely. The prism is placed base in the same direction and the magnitude is slowly increased until the mismatch between the patient's perceived center and the objective true center is observed. The amount of prism varies between 2-6 prism diopters at distance and can be slightly more at near.

Photosensitivity is most commonly experienced with fluorescent lighting due to the flickering nature of this light, but can also be common with all types of lights (indoors and outdoors). The use of tints and the recommendation of wearing brimmed hats can be extremely beneficial to alleviate some of these symptoms. The color and percentage of tint can vary and is based on patient preference.

Motion sensitivity is most common in visually crowded environments such as malls or grocery stores but can also be perceived with a repetitive pattern such as black and white tiles on a floor. These patients tend to report nausea, dizziness or a feeling of unsteadiness. The use of binasal occlusion with black or translucent tape has been used as it can reduce the amount of visual stress seen by both eyes through partial occlusion of the retinal images.

Vestibular dysfunction symptoms can include vertigo, lightheadedness when standing, oscillopsia, fatigue, blurred vision and disequilibrium. Specific history questions about whether the symptoms worsen when moving the head back and looking up or in the dark can be helpful in further pinpointing a dysfunction. If a dysfunction is suspected, referral to a physical therapist and a neurologist is necessary.

Tier 4: Non-Vision-Based Problems

- depression
- fatigue
- cognitive impairment
- behavioral problems
- postural problems
- attentional problems
- neurological problems

Referrals and resources

Many resources (both local and national) are available to support the care of veterans. For non-vision-based problems, an interdisciplinary approach is essential, and referrals to the appropriate specialists, such as neurologists, audiologists, psychiatrists, internal medicine physicians, therapists (occupational, physical, speech language), and family/marriage counselors, are key. The Veterans Health Research Institute (https://www.ncire.org/vet_resources/) provides multiple resources for veterans depending on their personal situation and needs.

Treating the patient as a whole within the matrix of family, friends, jobs, etc. can mean the difference for a veteran in their overall recovery and success.

Future Improvements in Obtaining Military Cultural Competency

Looking forward to the future, how can optometry improve its military cultural competency? Consideration should be given to introducing service-related visual problems, specifically those related to TBI given its prevalence, into the curricula of optometry schools. The military history should be taught as a routine part of the clinical examination in all optometry schools, as should the simple act of inquiring whether a patient has a military background. Involvement of more military treatment facilities (MTFs) as externship sites or one- to two-day clinical experiences can be extremely beneficial.

Optometrists who are already in practice should consider other avenues such as:

- Military health conferences
- Public events at local military posts
- Visiting local MTFs
- Online resources, such as those offered in "Basic Training: A Primer on Military Life and Culture for the Health Care Providers,"³⁴ as well as from the [Uniformed Services University/Center for Deployment Psychology](#), and the [VA](#), which include training, handouts and resources for specific veteran groups

Making a conscious effort and taking responsibility as a member of society might very well be one of the most important motivating factors in gaining cultural competency.

Conclusion

Until recently, the military was not considered a culturally distinct demographic. Due in part to mainstream legislative efforts, most notably the Joining Forces initiative, the realization that the military is a unique entity requiring a more nuanced clinical approach has grown. The military overlaps multiple cultures, creating an even more complex and intricate network than previously thought.

The delivery of health care with sensitivity to all aspects of a patient's background is crucial to obtaining the best possible clinical outcomes. Engaging in military cultural competence requires an awareness of the patient's behaviors and values as well as a willingness to help. When providers possess a basic knowledge of military values, the ability to offer culture-specific care improves. This creates a more long-lasting alliance between doctor and patient resulting in better care and outcomes. Although service members may be years removed from their service when seen by civilian providers, they still carry their armed service identity. As the authors Pappamihiel and Pappamihiel mention, "Service members retain values, attitudes, and behaviors that are distinctly military and significantly set apart from civilian ways."³⁵ Core values such as trust, honor, integrity, courage and strength can affect all aspects of the cultural identity and are not forgotten once the uniform is removed. Sensitivity to these values establishes a critical relationship between the civilian optometrist and the service member.

When providers seek to better understand the cultural backgrounds of their patients they are better equipped to provide more effective care. It is critical for clinicians to be well-informed about military culture and experience in order to provide culturally sensitive prevention and interventional services for service members, families and communities.²⁵

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Adventures in Minority Recruiting: A Closer Look at Recruiting Minorities at Southern College of Optometry

Janette D. Dumas, OD, FCOVD, FAAO | Optometric Education: Volume 43 Number 1 (Fall 2017)

The number of under-represented minorities (URMs) in the profession of optometry is not congruent with the percentage of minority patients optometrists examine in practice.¹ Awareness of this mismatch is an important starting point in reducing the gap in health disparities. Minorities report higher rates of patient satisfaction when they receive patient-centered care from racially akin providers, and this link has been observed to enhance health outcomes.²⁻⁴

To increase the number of qualified URMs applying to optometry school, Southern College of Optometry (SCO) developed the role of Coordinator of Minority Recruitment. This appointment is designed for a faculty optometrist to become a member of the Admissions staff to recruit at academic institutions and develop enrichment programs with a focus on under-represented minorities. The dual nature of this faculty member/minority recruiter role is unique among the schools and colleges of optometry. **(Table 1)**

▶ Member of the faculty and the Admissions staff
▶ Travels approximately 2-3 times per semester for an average of 1 week per trip
▶ Coordinates two summer programs, one for minority high school students and one for minority undergraduates
▶ 20% of the 40-hour workweek dedicated to minority recruitment activities

Table 1. [Click to enlarge](#)

Since I stepped into the role of SCO's Coordinator of Minority Recruitment, I have gleaned a few key lessons about effective and not-so-effective practices. I can sum them up as the three Cs of URM recruitment: communication, connection and culture.

Communication

Communication with students

Currently, points of interest during my recruiting trips include honors colleges, pre-optometry or pre-health-professions organizations and science classrooms at historically black colleges and universities (HBCUs) and predominantly white institutions. Initially, I had hit the ground running by attending as many health fairs as possible during my designated recruitment weeks. It has been documented that effective recruitment strategies include attending health career fairs, speaking to campus organizations and participating in career days.⁵ However, I noticed, at a career fair, where participants do not necessarily know about optometry, convincing one person at a time to visit your table is not an efficient way of swaying the campus mindset about pursuing optometry. Current education research confirms this. Instead of attending career fairs to see which careers match their interests, today's students attend career fairs to learn more about institutions in which they already have an interest.⁶ Therefore, I began gearing my visits to cast a wider net. I experience the best results when I speak to groups of health-profession-minded students in a conversation setting. The ability to convey enthusiasm for optometry while fielding questions in a more receptive environment increases interest and curiosity among students and advisors. More inquiries and follow-up questions come from this type of setting compared with the standard health career fair. However, health fairs do remain a useful option because the personal, face-to-face interaction is critical for building relationships, but other options may be more suitable for efficiency.

Communication with college advisors

Another area where strong communication and relational ties are invaluable is with campus advisors. When I contact advisors, many seem interested. Some are excited to hear about a profession in the "allied health" field because they understand not all of their students are interested in or suited for medical or dental school. Surprisingly, it was common for me to reach out to an advisor numerous times before I received a response. As I visited schools where inroads were more difficult to establish, more than one advisor explained that they evaluate the intent of recruiters. Is the recruiter here just to raise his or her own institution's minority numbers, or because he or she has a genuine interest in the students? Particularly at the HBCUs I visited, I found I needed to cultivate a level of trust. Advisors and the pre-health office tend to develop significant bonds with their students, and they want to ensure they are well taken care of at professional school. When I reach out consistently and work to develop a relationship with the advisors, they eventually begin to contact me as well. Be forewarned: Once a trusting relationship develops with an advisor, the speaking audience becomes larger and larger. This past fall, I spoke about optometry to more than 200 minority science students at Prairie View A&M University — quite an adventure for me!

Reaching out to high school counselors is another tool for delving into the pipeline of students and increasing recruitment. However, in my experience, most counselors do not initially respond to e-mails. Results improve when phone calls are made or visits are scheduled. While this is time-consuming, once the relationship develops, e-mail communication is sufficient. This becomes extremely valuable when I am coordinating visits to SCO or developing summer programs.

Connection

Building a connection with prospective optometry students usually takes time. To build and preserve the connection, it is imperative to ensure the door for communication remains wide open after the recruiter leaves the campus. Developing summer programs that invite competitive students to your campus is one of the best ways to create the connection students as well as advisors. If possible, programs should be paid for by your institution or by grants. So many other professions offer no-cost summer programs that for students with limited resources they have become not only crucial but expected. ASCO offers a diversity mini-grant program, which is a valuable resource for the schools and colleges of optometry. When advisors see the optometric institution investing in their students, without increasing the students' financial burden, unseen barriers break down. Summer programs also allow students to witness optometry in a more detailed setting, which solidifies aspirations to pursue it as a career.

Another program SCO developed to enhance connections invites advisors to an expenses-paid open house to experience optometry and get a glimpse of optometric education in action. This investment is invaluable! Once advisors gain a better understanding of the optometry school application process and the education of an optometrist, they return to their campuses throughout the country as promoters of the career as an option.

Culture

When presenting the optometry career option to prospective students, it is important to express the culture of the profession and school that will facilitate a good match for the students. Information about support services (**Table 2**) such as tutoring, peer mentoring and faculty mentoring may reduce anxiety about transitioning to professional school. Such services reflect the institution's commitment to the success of its students. The supportive atmosphere of the optometry school should be discussed, and it is essential to convey what cultural resources are available in the region of the school.

Support systems or lack thereof can make or break the transition to professional school and the education experience.^{5,7} For example, if a student has expressed an interest or hobby, and the recruiter offers to send him or her local information about it, it shows the recruiter cares about the well-being of the student. Another way to communicate cultural cooperation is to provide information about the optometry school's chapter of the National Optometric Student Association. Taking these types of steps portrays the community support that is vital for the students' success.⁸

TABLE 2
Examples of Support Services for Students

▶ Tutoring
▶ Faculty mentorship
▶ Peer mentorship
▶ Counseling
▶ Career/residency services

Table 2. [Click to enlarge](#)

Conclusion

In my experience, the beauty of adventures in minority recruiting is that the adventure never stops. The ability to influence others toward choosing this profession is exciting. Utilizing communication, connection and culture during this process has a positive effect on the recruitment of under-represented minorities.

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ASCO Announces Winner of 2017 Educational Starter Grant

| Optometric Education: Volume 43 Number 1 (Fall 2017)

Nicole M. Putnam, PhD, is the recipient of a 2017 Educational Starter Grant, which is provided by ASCO along with The Vision Care Institute, LLC, an affiliate of Johnson & Johnson Vision Care. The grant will support Dr. Putnam's education research project "An Inquiry-Based Approach to Teaching Sphero-Cylindrical Ametropia." Dr. Putnam is an Assistant Professor at Midwestern University Arizona College of Optometry.

The Educational Starter Grant program has been in place for several years. According to Aurora Denial, OD, FAAO, Editor of ASCO's journal *Optometric Education*, "Optometric faculty are committed to improving teaching and learning and moving the profession forward. I applaud all faculty who submitted grant applications this year."

Diversity in our Colleges and Schools of Optometry

Gary Y. Chu, OD, MPH (Guest Editor), Lillian Kalaczinski, OD, Diane Russo, OD, MPH, Janet Leasher, OD, MPH, Keisha Elder, OD, and Barbara Fink, OD, PhD | Optometric Education: Volume 43 Number 1 (Fall 2017)

The following report is one of two reports in this edition of the journal that highlight what ASCO has achieved over the past 12 years in the areas of cultural competence and diversity. ([Click here to read the other report, "The Path to Cultural Competence in Optometric Education and Practice: a Timeline to Multicultural Clinical Excellence."](#))

The cornerstones of the Association's efforts have been the Diversity and Cultural Competency Committee (DCCC) and its Cultural Competency Curriculum Guidelines Subcommittee (CCCGS).

The mission of the DCCC is:

- To enhance the possibility that students from under-represented minority groups will become interested in careers in optometry and apply to, be accepted by, and graduate from schools and colleges of optometry
- To encourage institutional diversity and cultural competency efforts across the nation's schools and colleges of optometry
- To develop national partnerships to explore and identify ways to share expertise, best practices and resources regarding diversity, recruitment and cultural competence across the spectrum of education/research/practice

The DCCC was formed as a task force in 2005 and became a standing committee in 2011 with a vision of achieving diversity and cultural competence in optometric education and patient care. The committee has made great strides, including the development of cultural competency curriculum guidelines in 2008. The charge of the CCCGS was to facilitate and encourage implementation of the curriculum guidelines at the schools and colleges of optometry. The subcommittee met its charge and was discontinued in June 2015.

ASCO wishes to acknowledge the many contributors to the DCCC and the CCCGS, as well as those who helped to lay crucial groundwork in the Association's cultural competency and diversity efforts, all of whom have moved the needle forward in these important endeavors. Special thanks go to Edwin C. Marshall, OD, MS, MPH, FAAO, FNAP (Indiana University), who chaired the ASCO Diversity Task Force and the ASCO Cultural Competence Guidelines Work Group, Larry Davis, OD (UMSL), who chaired the DCCC over the past three years, and Barbara Fink, OD, MS, PhD (OSU), who chaired the CCCGS to implement training workshops at 18 schools and colleges of optometry.

ASCO Diversity Task Force (2006-2008)

Chair, Edwin C. Marshall, OD, MS, MPH, FAAO, FNAP (Indiana University)

Robert E. Horn, MS (PCO)

Liduvina Martinez-Gonzalez, MS (SUNY)

Sam Quintero, OD (University of Houston)

Jeffrey J. Walline, OD, PhD (OSU)

Cynthia G. Heard, OD (AAO)

Teisha Johnson, MS (ICO)

Renee Mika, OD (AOA)

Gerald Simon, OD (UAB)

Hector C. Santiago, OD, PhD (ASCO Executive Committee)

Paige Pence, BA (ASCO staff)

Enid-Mai Jones, MA, MEd (former ASCO staff)

ASCO Cultural Competence Guidelines Work Group (2007-2008)

Chair, Edwin C. Marshall, OD, MS, MPH, FAAO, FNAP (Indiana University)

Yi Pang, OD, PhD (ICO)

Sunita Mutha, MD (Consultant, UCSF)

Barbara Fink, OD, MS, PhD (OSU)

Hector C. Santiago, OD, PhD, (Inter American University of Puerto Rico)

Priti Patel, OD (Liaison, Wal-Mart Optical Division)

Paige Pence, BA (ASCO staff)

Enid-Mai Jones, MA, MEd (former ASCO staff)

Cultural Competency Curriculum Guidelines Subcommittee (2014-2015)

Chair, Gary Chu, OD, MPH (NECO)

Past Chair, Barbara Fink, OD, MS, PhD (OSU)

Angel Novel-Simmons, OD (USML)

Hector Santiago, OD, PhD (IAUPR)

Wendy Stone, OD (ICO)

Carol Brubaker (ASCO staff liaison)

Diversity and Cultural Competency Committee (2017-2018)

Chair, Andrew Buzzelli, OD, MS (KYCO)

Past Chair, Larry Davis, OD (UMSL)

Gary Chu, OD, MPH (NECO)

Keshia Elder, OD (UABSO)

Lillian Kalaczinski, OD (MCO)

Carrie Lebowitz, OD (SCO)

Ruth Shoge, OD (Salus/PCO)

Carol Brubaker (ASCO staff liaison)

As you read this report, it is important to keep in mind that achievement and maintenance of cultural competency and diversity are continuous journeys. As such, the report serves as a signpost as we continue on this road.

ASCO Special Report:

Diversity in our Colleges and Schools of Optometry

Gary Y. Chu, OD, MPH (Guest Editor), Lillian Kalaczinski, OD, Diane Russo, OD, MPH, Janet Leasher, OD, MPH, Keisha Elder, OD, and Barbara Fink, OD, PhD

ASCO has recognized the need for diversity and cultural competency at its member schools and colleges of optometry. A task force to work towards these goals was formed in 2005. In 2011, the task force became a formal standing committee within the structure of ASCO. As a profession and an education community, we have made advances in the teaching of cultural and linguistic competence in our curricula. However, we have not formally reviewed the status of the diversity of the student body and faculty in our schools and colleges of optometry. Along with our colleagues all over the country, we recognize the importance of diversity. We realize it is a worthy goal to achieve, and that it begins with our student body.

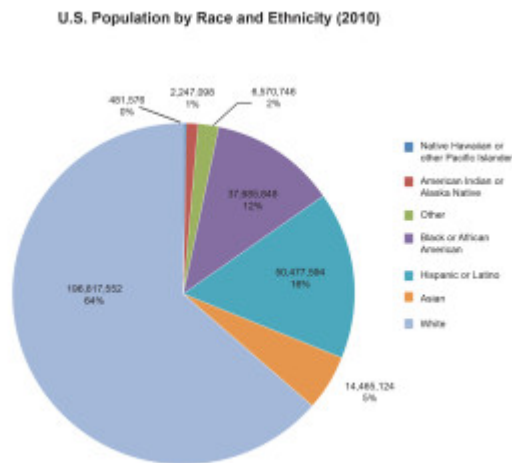


Figure 1. [Click to enlarge](#)

The Merriam-Webster dictionary defines diversity as the condition of having or being composed of differing elements.¹ Over the course of history, the demographic composition of the United States has become increasingly more racially and ethnically diverse. According to the 2010 Census,² the U.S. population was 308,745,538, 36% of which was comprised of various minority groups (Black or African American, Hispanic or Latino, Native Hawaiian or other Pacific Islander, American Indian or Alaska Native, Asian, and other) (**Figure 1**). In 2015, the minority population represented 40% of the total U.S. population. Our healthcare workforce and the optometric workforce currently do not reflect the changing racial and ethnic diversity of our country. According to the Bureau of Health Workforce of the Health Resources and Services Administration of the U.S. Department of Health and Human Services, the health professions workforce, on average, is predominantly White: 79.9% of all health professionals and 79.7% of the optometric workforce are White.³

There is clearly an imbalance in the racial and ethnic diversity represented within optometry as compared to the U.S. population. This type of mismatch contributes to differences in health status and access to care for many citizens.⁴ In 2003, the Institute of Medicine (IOM) warned of the “unequal treatment” minorities face when encountering the health system. Cultural differences and a lack of access to health care, combined with high rates of poverty and unemployment, contribute to substantial ethnic and racial disparities in health status and health outcomes.⁵ Access to eye care has not been spared from these trends. Children from impoverished and rural neighborhoods have very limited access to eye care after failing a vision screening, which disproportionately impacts children from poor households.⁶ Diabetic patients of color in underserved neighborhoods at federally qualified health centers (FQHCs) do not have adequate access to eye care because only 18% of FQHCs have on-site eye clinics.⁷

Health services research has shown that minority health professionals are likely to serve minority and medically underserved populations.⁸ The IOM recommends increasing the number of minority health professionals as a key strategy for eliminating health disparities.⁹

Many health professions, such as medicine, pharmacy, nursing and radiology, have created a call to action to increase diversity in their ranks.¹⁰⁻¹² (See our recommended call to action for optometry below.) In order to diversify the optometry workforce, we must first examine and expand the racial and ethnic diversity of our student body and faculty.

Cultural and linguistic competence influences how optometrists deliver health care. The cultural challenges posed by a shifting patient demographic can be addressed by optometrists who are educated and trained in a culturally dynamic environment, which includes the student body as well as the patients served by each academic institution. Students from different backgrounds can learn from one another and, hence, have a positive impact on the care of the patient and in the perspectives of care delivery. Patients receiving care from providers of the same race/ethnic background have reported higher satisfaction.¹³

This report aims to review the data ASCO has compiled from its member schools over the past 10 years, which includes information about gender, race and ethnicity.¹⁴ The report examines trends, reviews current initiatives and recommends a call to action.

Data and Analysis

Data on optometry students and the United States population from 2006 to 2016 were obtained and analyzed as described herein.^{2,14} ASCO Student Data Reports are publicly available on the Association’s website. The reports aggregate data on enrolled students by male or female gender and ethnic identification as reported by each of 21 schools and colleges of optometry (**Table 1**).¹⁴ Ethnic identification is self-reported by students and is listed in seven categories: Black or African American, Hispanic or Latino, American Indian or Alaska Native, Asian, Native Hawaiian or other Pacific Islander, White, or Other. The gender and ethnic identification data from these reports were collated into spreadsheets by school and analyzed for trends over time. Additionally, the data were summed with descriptive statistics for all schools by year to analyze trends over time (**Figures 2-4**).

In 2006, 5,377 students were enrolled in optometry school. By 2016, 6,900 students were enrolled in optometry school, an increase of 28.3% during this time period. In 2006 and in 2016, the majority of students were female, 63.1% and 67.1%, respectively. The number of female students steadily rose in that time from 3,393 in 2006 to 4,633 in 2016 (a 28.7% increase), while the number of male students remained stable until 2010, when slight increases started to occur (from 1,984 in 2006 to 2,267 in 2016, a 14.3% increase).

In 2006, of the seven racial and ethnic categories to which students self-reported, 63.2% identified as White and 23.3% identified as Asian. Other racial and ethnic groups, which include Hispanic or Latino, Black or African American, American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and Other made up (individually) 5.1% or less of the total. As of 2016, the largest percentage of the student body (82.2%) remained White and Asian. While the numbers of students identifying as Hispanic or Latino, Black or African American, American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and Other have generally increased, the percentage of students in each category has largely remained stagnant. There has been a decrease in the percentage of White students, from 63.2% in 2006 to 54.2% in 2016. However, the total number of White students had increased from 3,399 in 2006 to 3,737 in 2016. The only racial and ethnic category that has registered increases in the total number and percentage of students is Asian, from 1,252 (23.3%) in 2006 to 1,931 (28.0%) in 2016, an increase of 54.2%.

TABLE 1
Full-Time Students Enrolled in U.S. Optometry Degree Programs by Year, Gender and Ethnicity

Academic Year	Gender	Native Hawaiian or other Pacific Islander	American Indian or Alaska Native	Black or African American	Other	Hispanic or Latino	Asian	White	TOTAL
2006	overall	14	28	148	221	273	1242	3388	5377
	male	8	10	59	87	87	316	1485	1984
2007	overall	9	10	150	154	198	935	3208	5363
	male	6	7	71	70	74	324	1430	1982
2008	overall	23	9	139	218	307	982	3402	5273
	male	12	7	72	121	163	543	1987	2997
2009	overall	12	10	128	243	382	1027	3982	5389
	male	7	8	58	128	213	585	1372	1974
2010	overall	4	11	134	242	378	1119	3241	3829
	male	2	6	42	159	276	415	1430	2170
2011	overall	6	16	122	262	379	1188	3209	4792
	male	4	23	144	189	274	1199	2427	3066
2012	overall	5	9	90	188	303	882	3412	4787
	male	4	16	114	208	379	1248	2609	3374
2013	overall	13	24	149	407	274	1044	2828	4299
	male	8	9	62	138	191	656	1438	2243
2014	overall	7	15	128	287	193	1320	3089	4349
	male	3	7	67	139	189	525	1440	2204
2015	overall	11	22	129	289	342	1400	2709	4261
	male	6	12	204	408	382	1038	2129	3075
2016	overall	12	12	141	317	387	1054	3476	4288
	male	7	10	66	114	198	621	1484	2036
2017	overall	19	32	153	267	224	1493	3228	4899
	male	11	9	56	114	138	621	1484	2036
2018	overall	16	46	145	341	383	1091	3237	4960
	male	9	10	50	172	195	465	1429	2267
2019	overall	10	30	132	409	248	1405	2708	4632
	male	6	15	65	158	187	544	1429	2297

Source: ASCO Annual Student Data Reports

Table 1. [Click to enlarge](#)

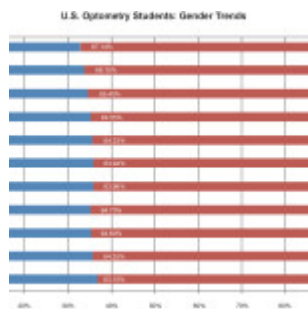


Figure 2. [Click to enlarge](#)

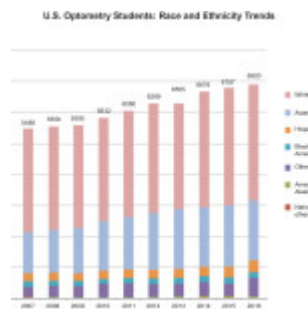


Figure 3. [Click to enlarge](#)

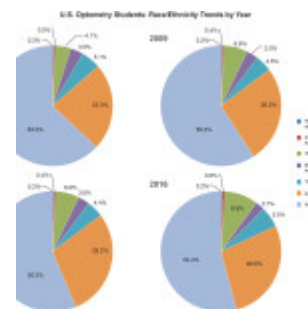


Figure 4. [Click to enlarge](#)

In Academic Year 2016, ASCO added the category of Two or More Races to its Student Data Report, which changed the way students self-identified. For consistency, this new category was included in the category of Other for the purposes of this report. The category of Other has not exhibited a consistent trend throughout the years, which may be due to different interpretations by individual students.

Discussion

The analysis of optometry student data from the previous decade reveals both success and opportunity for increasing diversity. The percentage of female students is trending up in most schools and colleges and in recent years has exceeded the percentage of women in the U.S. population (50.8% in 2015 according to the Census). The number of optometry students from minority groups is significantly lower than the number of minorities in the U.S. population. Minority inclusion in the optometry student body mirrors that of other health professions and demonstrates a widening discrepancy between the future healthcare workforce and the U.S. population.³

ASCO and its member institutions have embraced the concepts of diversity and multiculturalism in optometric education and in the profession. The Developing a Diverse Applicant Pool in Optometric Education Mini-Grant Program provided seed money for specific programs/projects that assisted schools and colleges of optometry with programs designed to implement educationally sound activities for recruiting and retaining under-represented minority (URM) students, financially disadvantaged students and first-generation college students. This 10-year project has opened doors for URM students but has made little impact on the overall diversity of the student body.

Optometry is not alone in recognizing the need for a diversified workforce. In addition to other health professions, business and the entertainment industry are demonstrating a growing appreciation for and commitment to diversity and inclusiveness. There are lessons to be learned from the success of these other industries. Fortune 500 companies have realized that diverse companies create more innovative products, happier customers and better financial returns.¹⁵ The Academy of Motion Picture Arts and Sciences (AMPAS) has felt the sting of not embracing diversity, not only from actors, directors, producers and the press, but more importantly from the consumers of movies. In January 2016, following two consecutive years of Oscar awards with no nominations of actors of color, the AMPAS Board of Governors unanimously made significant changes to increase diversity, which include recruitment of women and under-represented minorities to its membership and board.¹⁶ AMPAS initiatives were clearly a reaction to the outcry of the public, but the commitment to excellence through diversity was lauded.¹⁷

It is clear that a single strategy will not create meaningful change. Optometry needs to approach the problem from multiple fronts. While most professions do not start recruiting potential students until high school, ASCO should consider developing programs that introduce young minority students to optometry as early as middle school and continue throughout high school. This is an ideal opportunity for ASCO to partner with state and local optometric organizations to develop outreach programs that could be deployed in communities with large minority populations. The diversity mini-grants have yielded success in a number of schools and colleges of optometry, and consideration for a national program should be on the agenda.

Nursing includes several examples of pipeline strategies that have increased the number of minority students recruited out of high school who successfully complete nursing programs.¹⁸ Recruiting strategies that target undergraduate college students are also valuable. Unfortunately, studies indicate that female and minority students are less likely to consider a career in the science, technology, engineering or math (STEM) fields and are more likely to change majors in undergraduate school.¹⁹ Minority students often start STEM majors facing additional barriers when compared to their White peers. Some colleges and universities are developing programs to address these barriers with the hope of creating a larger pool of minority applicants for graduate and health professions programs.²⁰ The best students are being recruited by multiple programs. Individual schools of optometry might consider the feasibility of early admission for promising undergraduate students.

Conclusion

The benefits of a racially and ethnically diversified student population are numerous and have been outlined in this report as well as landmark white papers from the Macy Foundation²¹ and the Sullivan Commission.⁴ Diversification is not a quota that needs to be filled, but an area of excellence that requires a commitment from each school and college of optometry. Leadership is needed not only from our schools, their Boards of Trustees, senior administration, faculty and staff, but also from the profession as a whole. The applicant pool is stagnant, and each school and college is competing for the same group of students. Addressing the diversity gap not only moves the profession forward, but helps to enrich the applicant pool. Nonetheless, this commitment needs to be a part of the culture and fabric of our institutions. In order for the profession of optometry to be diverse, change is required immediately. A diverse student body is the beginning of a diverse optometric workforce, which will also lead to diverse optometric leadership for the profession.

ASCO has made a commitment through the development of a cultural competency curriculum. Fourteen of its 23 member schools have participated in cultural competency curriculum implementation workshops. Many schools have explored pipeline programs through the ASCO diversity mini-grant program. However, these activities have produced only local change. They have not translated to significant change holistically, as documented in this paper. A high commitment needs to be embraced. Optometry's diversity can no longer afford to be different than the diversity of the U.S. population. Diversity is a strength and asset to the profession. We can learn from other health professions (medicine, nursing, etc.), AMPAS and Fortune 500 companies. Excellence in diversity will lead to happier patients, doctors and staff. This will take time, as do all investment

portfolios. When we start, compounding will take place, and, in a matter of time, we will reap the benefits of our actions.

Call to Action

To increase diversity and the numbers of URM students who graduate from the schools and colleges of optometry, action is required. We recommend the following call to action for ASCO and its member institutions.

- Collect data in regard to all aspects of education (diversity of applicants, current students, residents and faculty); without a complete picture of our current status, it will be difficult to measure success
- Track reasons why URM students drop out of optometry school (under-performance is a complex issue that needs to be carefully studied and addressed; mentoring, counseling and financial investment is needed for URM students who may not have the resources to help them succeed in a rigorous academic program; various cultural differences and needs exist, which will necessitate individualized support and resources to appropriately meet the needs of these students)
- Pool ASCO and optometry school resources to develop pipeline programs for URM students (work with and learn from STEM programs and other health professions schools)
- Market the profession beyond undergraduate programs to include middle schools and high schools
- Understand the return on investment is not immediate (it may take a decade, but without investing with a clear and committed strategy, we will be in the same position 10 years from now)

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The Path to Cultural Competence in Optometric Education and Practice: a Timeline to Multicultural Clinical Excellence

Edwin C. Marshall, OD, MS, MPH, FAAO, FNAP | Optometric Education: Volume 43 Number 1 (Fall 2017)

The following report is one of two reports in this edition of the journal that highlight what ASCO has achieved over the past 12 years in the areas of cultural competence and diversity. ([Click here to read the other report, "Diversity in our Colleges and Schools of Optometry."](#))

The cornerstones of the Association's efforts have been the Diversity and Cultural Competency Committee (DCCC) and its Cultural Competency Curriculum Guidelines Subcommittee (CCCGS).

The mission of the DCCC is:

- To enhance the possibility that students from under-represented minority groups will become interested in careers in optometry and apply to, be accepted by, and graduate from schools and colleges of optometry
- To encourage institutional diversity and cultural competency efforts across the nation's schools and colleges of optometry
- To develop national partnerships to explore and identify ways to share expertise, best practices and resources regarding diversity, recruitment and cultural competence across the spectrum of education/research/practice

The DCCC was formed as a task force in 2005 and became a standing committee in 2011 with a vision of achieving diversity and cultural competence in optometric education and patient care. The committee has made great strides, including the development of cultural competency curriculum guidelines in 2008. The charge of the CCCGS was to facilitate and encourage implementation of the curriculum guidelines at the schools and colleges of optometry. The subcommittee met its charge and was discontinued in June 2015.

ASCO wishes to acknowledge the many contributors to the DCCC and the CCCGS, as well as those who helped to lay crucial groundwork in the Association's cultural competency and diversity efforts, all of whom have moved the needle forward in these important endeavors. Special thanks go to Edwin C. Marshall, OD, MS, MPH, FAAO, FNAP (Indiana University), who chaired the ASCO Diversity Task Force and the ASCO Cultural Competence Guidelines Work Group, Larry Davis, OD (UMSL), who chaired the DCCC over the past three years, and Barbara Fink, OD, MS, PhD (OSU), who chaired the CCCGS to implement training workshops at 18 schools and colleges of optometry.

ASCO Diversity Task Force (2006-2008)

Chair, Edwin C. Marshall, OD, MS, MPH, FAAO, FNAP (Indiana University)

Robert E. Horn, MS (PCO)

Liduvina Martinez-Gonzalez, MS (SUNY)

Sam Quintero, OD (University of Houston)

Jeffrey J. Walline, OD, PhD (OSU)

Cynthia G. Heard, OD (AAO)

Teisha Johnson, MS (ICO)

Renee Mika, OD (AOA)

Gerald Simon, OD (UAB)

Hector C. Santiago, OD, PhD (ASCO Executive Committee)

Paige Pence, BA (ASCO staff)

Enid-Mai Jones, MA, MEd (former ASCO staff)

ASCO Cultural Competence Guidelines Work Group (2007-2008)

Chair, Edwin C. Marshall, OD, MS, MPH, FAAO, FNAP (Indiana University)

Yi Pang, OD, PhD (ICO)

Sunita Mutha, MD (Consultant, UCSF)

Barbara Fink, OD, MS, PhD (OSU)

Hector C. Santiago, OD, PhD, (Inter American University of Puerto Rico)

Priti Patel, OD (Liaison, Wal-Mart Optical Division)

Paige Pence, BA (ASCO staff)

Enid-Mai Jones, MA, MEd (former ASCO staff)

Cultural Competency Curriculum Guidelines Subcommittee (2014-2015)

Chair, Gary Chu, OD, MPH (NECO)

Past Chair, Barbara Fink, OD, MS, PhD (OSU)

Angel Novel-Simmons, OD (USML)

Hector Santiago, OD, PhD (IAUPR)

Wendy Stone, OD (ICO)

Carol Brubaker (ASCO staff liaison)

Diversity and Cultural Competency Committee (2017-2018)

Chair, Andrew Buzzelli, OD, MS (KYCO)

Past Chair, Larry Davis, OD (UMSL)

Gary Chu, OD, MPH (NECO)

Keshia Elder, OD (UABSO)

Lillian Kalaczinski, OD (MCO)

Carrie Lebowitz, OD (SCO)

Ruth Shoge, OD (Salus/PCO)

Carol Brubaker (ASCO staff liaison)

As you read this report, it is important to keep in mind that achievement and maintenance of cultural competency and diversity are continuous journeys. As such, the report serves as a signpost as we continue on this road.

ASCO Special Report:

The Path to Cultural Competence in Optometric Education and Practice: a Timeline to Multicultural Clinical Excellence

Edwin C. Marshall, OD, MS, MPH, FAAO, FNAP

The U.S. population is becoming increasingly more diverse in terms of its racial, ethnic, cultural and linguistic characteristics, and these characteristics are becoming increasingly more relevant to understanding patient behavior and delivering quality health care. However, the healthcare workforce has not grown to mirror the diversity of the population, and its ability to respond to the needs of diverse patients has become more challenging. Low provider diversity and the potential for consequent challenges are especially relevant to optometry, where the workforce is considerably less diverse than the general population and optometry student enrollment - particularly for African American and Hispanic students - is not suggestive of significant change in the near future (**Table 1**).

TABLE 1
Percent Race and Ethnicity of the U.S. Population and Optometry Workforce

	Population Estimate 2015 ^a	Optometrists 2011-2015 ^b	Optometry Students	
			Enrolled 2015-2016 ^c	Graduates 2015 ^c
American Indian and Alaska Native	0.9	NR	0.6	0.4
Asian	6.6	14.3	29.6	30.9
Black or African American	15.1	1.9	2.8	3.7
Native Hawaiian and Other Pacific Islander	0.2	NR	0.2	0.5
White	74.7	81.6	57.3	57.4
Two or More Races	2.5	1.9	2.3	1.6
Other/Unknown	NR		7.1	5.3
Total Race (Non-Hispanic)	100.0	99.7	99.9	100.0
Hispanic or Latino	17.6	3.9	5.6	4.6
Non-Hispanic or Latino	82.4	96.1	94.4	95.4
Total Racial/Ethnic	100.0	100.0	100.0	100.0

NR = not reported

a. U.S. Census Bureau. *Annual Estimates of the Resident Population by Sex, Race, and Hispanic Origin for the United States, States, and Counties: April 1, 2010 to July 1, 2015*. Accessed Nov. 18, 2016. Available from:

<https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmm>

b. U.S. Department of Health and Human Services, Health Resources and Services Administration, National Center for Health Workforce Analysis. *Sex, Race, and Ethnic Diversity of U.S. Health Occupations (2011-2015)*, Rockville, MD; 2017. Accessed Oct. 5, 2017. Available from:

<https://bhw.hrsa.gov/sites/default/files/bhw/nchwa/diversityushealthoccupations.pdf>

c. Association of Schools and Colleges of Optometry. *Annual Student Data Report: 2015-2016 Student Data Report*. Accessed Oct. 6, 2017. Available from:

<https://www.optometriceducation.org/wp-content/uploads/2017/05/ASCO-StuData-Report-15-16-5-9-17-2.pdf>

Table 1. Click to enlarge

The case for increasing diversity in the healthcare workforce has been adequately documented by the U.S. Department of Health and Human Services,¹ the Institute of Medicine (IOM),² and the Sullivan Commission on Diversity in the Healthcare Workforce.³ While workforce diversity is an important element in meeting the needs of a diverse population and eliminating racial and ethnic disparities in health and health care, diversity alone does not necessarily imply competency in the workforce’s ability to understand and react effectively to the healthcare challenges of a culturally diverse population.

Culture is not a singular attribute, but a composite of demographics, value systems and learned behaviors that can create multiple cultural identities. According to Cross et al., it “implies the integrated pattern of human behavior that includes thoughts, communications, actions, customs, beliefs, values, and institutions of a racial, ethnic, religious, or social group.”⁴ Culture has become an important variable in the delivery of quality health care. A failure to recognize and address its relevance to health care can lead to a poor quality of care. Cultural beliefs, customs, values, attitudes, perspectives, expectations, preferences, experiences, assumptions, fears and practices across diverse populations help form and influence variations in health understanding and behavior. Factors ranging from effective communication and engagement to issues of trust and compliance to decision-making and overall satisfaction can be positively or negatively impacted by the intercultural dynamics within the patient-provider encounter.⁵

Identifying cultural competence as “the knowledge, skills, attitudes, and behavior required of a practitioner to provide optimal health care services to persons from a wide range of cultural and ethnic backgrounds,” Cohen and colleagues state that, “health care providers must have a firm understanding of how and why different belief systems, cultural biases, ethnic origins, family structures, and a host of other culturally determined factors influence the manner in which people experience illness, adhere to medical advice, and respond to treatment.”⁶ Cohen also affirms that “such differences are real and translate into real differences in the outcomes of care.” For example, implicit or unconscious bias (unconscious stereotyping) may influence provider expectations and the type of questions asked during case history, which in turn could lead to incomplete diagnoses and inadequate treatment decisions.⁷

Betancourt et al. state “the goal of cultural competence is to create a health care system and workforce that are capable of delivering the highest quality care to every patient regardless of race, ethnicity, culture, or language proficiency.”⁸ To do so, healthcare providers must be able to reconcile their personal and professional values and cultural assumptions against those of their patients and tailor care that is consistent with their patients’ needs, expectations and preferences.^{9,10} Applying the knowledge and skills necessary to understand and appreciate the cultural needs, beliefs and practices of patients fosters relationships that minimize opportunities for miscommunication, misunderstanding, misinterpretation, distrust and dissatisfaction and improve opportunities for patient compliance, optimal outcomes and quality healthcare experiences.

Cultural Competency in Clinical Practice and Health Professions Education

Clinical practice

The cultural competency discussion has never been more important than today as the healthcare professions look to redefine excellence in the context of a diverse and multicultural society. In 2000, the U.S. Office of Minority Health (OMH) published the National Standards for Culturally and Linguistically Appropriate Services in Health Care (National CLAS Standards) to help reduce healthcare access and service inequities created by cultural and linguistic barriers.¹¹ Four years later the OMH launched a self-directed, e-learning CME/CE credit experience with A Physician’s Practical Guide to Culturally Competent Care. The guide, the National CLAS Standards, and other resources to assist healthcare professionals with the knowledge, skills, attitude and awareness to care for patients regardless of their cultural or linguistic background were placed on the OMH’s “Think Cultural Health” website (<https://www.thinkculturalhealth.hhs.gov/>) for access by physicians and other healthcare professionals.

In *Crossing the Quality Chasm: A New Health System for the 21st Century*, the IOM identified specific aims for the 21st century healthcare system. Included among IOM’s specific aims were providing “care that is respectful of and responsive to individual patient preferences, needs, and values” (patient-centered care) and “care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status” (equitable care).¹² With a finding that “cultural awareness and cultural competence are essential skills for providing quality health care to a diverse patient population,” the New Jersey legislature made New Jersey the first state to make cultural competency training a condition of physician licensure by the State Board of Medical Examiners: “The public interest in providing quality health care to all segments of society dictates the need for a formal requirement that medical professionals be trained in the provision of culturally competent health care as a condition of licensure to practice medicine in New Jersey.”¹³ The 2005 legislation also required persons who received a diploma from a New Jersey college of medicine prior to the effective date of the legislation to document completion of cultural competency training to the satisfaction of the board as a condition of re-licensure.

Health professions education

A 1991 position paper adopted by the American Nurses Association (ANA) Board of Directors stated that “ethnocentric approaches to nursing practice are ineffective in meeting health and nursing needs of diverse cultural groups” and called for all nursing curricula to include “pertinent information about diverse health care beliefs, values, and practices” to demonstrate that “cultural beliefs and practices are as integral to the nursing process as are physical and psycho-social factors.”¹⁴ The Society of Teachers of Family Medicine (STFM) was one of the early adopters of core curriculum guidelines to promote culturally sensitive and competent health care.¹⁵ The 1996 guidelines included the attitudes, knowledge and skills considered to be important to the delivery of high-quality primary care with the belief that “a deeper understanding of the sociocultural background of patients, their families, and the environments in which they live” and an appreciation of “how one’s own cultural values, assumptions, and beliefs influence the provision of clinical care” are necessary for such care to be “meaningful, acceptable, accessible, effective, and cost-efficient.”¹⁵

The Liaison Committee on Medical Education (LCME), recognized by the U.S. Department of Education as the accrediting authority for programs leading to the MD degree, established cultural competence standards in 2000.¹⁶ LCME standard 7.6 requires:¹⁷ “The faculty of a medical school ensure that the medical curriculum provides opportunities for medical students to learn to recognize and appropriately address gender and cultural biases in themselves, in others, and in the health care delivery process; and the medical curriculum include instruction regarding:

- The manner in which people of diverse cultures and belief systems perceive health and illness and respond to various symptoms, diseases, and treatments
- The basic principles of culturally competent health care
- The recognition and development of solutions for health care disparities
- The importance of meeting the health care needs of medically underserved populations
- The development of core professional attributes (e.g., altruism, accountability) needed to provide effective care in a

multidimensional and diverse society”

By the 2003-2004 academic year, almost 51% of U.S. residency programs included cultural competence training.¹⁸ In 2004, the Health Resources and Services Administration (HRSA) published *Cultural Competency in Medical Education: A Guidebook for Schools* to assist medical schools in integrating cultural competency through institutional tailoring of a suggested curriculum and application of strategies to “sell” the curriculum and prepare faculty to teach cultural competency.¹⁹ To further expand the role of cultural competence education for medical students, the Association of American Medical Colleges (AAMC) published *Cultural Competence Education*. In the 2005 monograph the AAMC endorsed the importance of healthcare professionals being “educated specifically to address issues of culture in an effective manner.”¹⁶ In addition to the licensure requirement, the 2005 New Jersey legislation also requires instruction and training in cultural competency to be included in the curricula of each of the state’s medical schools: “Completion of cultural competency instruction . . . shall be required as a condition of receiving a diploma from a college of medicine in this State.”¹³ The legislation directs medical schools to provide classroom instruction, workshops or other educational programs, including continuing education credit, “developed in consultation with the Association of American Medical Colleges or another nationally recognized organization which reviews medical school curricula.” The Indiana University School of Medicine, the largest medical school in the United States, offers programs to engage faculty, staff and learners in dialogues about important medicine and healthcare issues facing diverse populations. The school also offers cultural competence workshops on a variety of topics, such as cultural differences and mistrust, intercultural communication, diversity, health disparities and implicit bias.

In 2006, the Association of Schools of Public Health set forth a baseline of skills in the domain of diversity and culture that MPH students should master prior to graduation.²⁰ Following up five years later, the Interprofessional Education Collaborative – consisting of the American Association of Colleges of Nursing, American Association of Colleges of Osteopathic Medicine, American Association of Colleges of Pharmacy, American Dental Education Association, Association of American Medical Colleges, and the Association of Schools of Public Health – published the 2011 *Core Competencies for Interprofessional Collaborative Practice*. The collaborative called for health professions education programs to “embrace the cultural diversity and individual differences that characterize patients, populations, and the health care team” as a core interprofessional competency in the learning process.²¹ The next year an expert panel convened by the Association of American Medical Colleges and the Association of Schools of Public Health reported out a second set of joint educational recommendations that would help prepare students for successful practice. With the goal of embedding cultural competence in medical and public health education and practice, the expert panel identified cultural competencies common to medical and public health students across the three domains of knowledge (cognitive competencies), skills (practice competencies) and attitude (values/beliefs competencies).²²

The Path to Culturally Competent Eye and Vision Care

The National Academies of Sciences, Engineering, and Medicine (NASEM) believes “including training in culturally competency in all medical, optometric, allied health, and public health educational programs could be an effective strategy for improving health system quality across all specialties and professions.”²³ One of the earliest efforts to address the needs of culturally and linguistically diverse patients in eye and vision care came via the National Eye Institute (NEI). Responding to a 1988 congressional directive, the NEI launched in 1991 a national partnership with public and private organizations – the National Eye Health Education Program – to collaborate on creating culturally and linguistically appropriate, evidence-based resources for eyecare professionals to use in caring for culturally and linguistically diverse patients at higher risk for eye disease and vision loss (<https://nei.nih.gov/nehep>). Almost a decade and a half later in 2004, the Association of Schools and Colleges of Optometry (ASCO) developed “A Road Map for Diversity in Optometric Education and the Profession.” The road map called for the schools and colleges of optometry to “create, foster, and maintain an institutional climate that welcomes and embraces diversity” by conducting multicultural symposia and developing cultural competence/cultural communication seminars for faculty and staff.²⁴

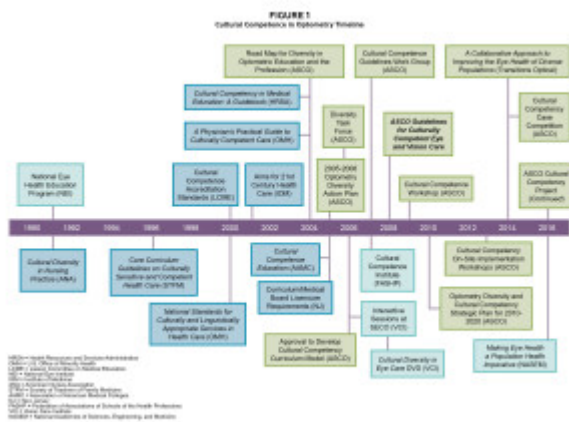


Figure 1. Click to enlarge

In March of 2005, Vistakon hosted at its headquarters in Jacksonville a meeting of the newly formed ASCO Diversity Task Force. The meeting was an adjunct to Vistakon’s diversity training agenda and included representatives from ASCO, the American Optometric Association (AOA), the National Optometric Association (NOA), the American Academy of Optometry (AAO) and the National Optometric Student Association (NOSA). The participants explored mechanisms for implementing the objectives and approaches outlined in the ASCO diversity road map. The outcome of the meeting was the 2005-2006 ASCO Diversity Action Plan, which was approved by the ASCO Board of Directors at its June meeting.

The diversity action plan was based on the diversity road map and represented the next step in ASCO’s diversity initiative. The objective of the plan was to make diversity and multiculturalism core values within the academic culture of the ASCO schools and colleges of optometry.²⁵ Key components of the plan included the incorporation of diversity and cultural competency in the mission, goals and objectives of member institutions and the development of a cultural competency curriculum. The plan also included a focus on increased student diversity, realizing that students at more diverse schools tend to have higher self-assessments of cultural competence and are better prepared to address the needs of a multicultural population.²⁶

On the practice side, the Vision Care Institute (VCI) – a Johnson & Johnson Company – provided an educational grant to SECO in 2006 in support of a continuing education program on cultural competency for conference attendees. Professional actors staged a series of theatrical sketches to illustrate the interpersonal faux pas from cultural blindness in a mock optometric office. The interactive sessions at the 2006 conference in Atlanta portrayed how certain conscious and unconscious actions could be influenced by cultural differences and how they might impact clinical care. The “Cultural Diversity in Eye Care” session was videotaped and released as a DVD by the VCI in 2007.²⁷

ASCO Guidelines for Culturally Competent Eye and Vision Care

In concert with the ASCO Road Map for Diversity in Optometric Education and the Profession, the Diversity Task Force requested approval from the ASCO Board to proceed with the Diversity Action Plan’s recommendation to develop a cultural competency curriculum for implementation by the schools and colleges of optometry. The ASCO Board of Directors approved the task force’s request in June 2006. The approval to develop a “cultural competency curriculum model” came with the understanding that external funding would be required to support the process. The task force prepared and submitted a proposal for funding to Walmart’s Optical Division, an ASCO Corporate Contributor that expressed interest in supporting ASCO’s diversity initiatives. The proposal stressed the importance of a culturally competent optometric workforce in meeting the quality of care demands of a diverse society. Walmart approved the task force’s request with a grant for \$70,000 over two years (2007-2008). The funding was split into two phases. Phase 1 funding supported the convening of a group of experts to develop the cultural competency curriculum model; phase 2 funding supported a training workshop on the cultural competency curriculum for faculty and administrators.

Phase 1

In January 2007, the chair of the ASCO Diversity Task Force, the ASCO Director of Student Affairs, and a faculty member from the UAB School of Optometry, along with representatives from allopathic medicine, osteopathic medicine, dentistry, pharmacy, nursing, veterinary medicine, allied health, public health and physician assistant education participated in the four-day Cultural Competence in Health Professions Education Institute sponsored by the Federation of Associations of Schools of the Health Professions (FASHP). The institute was designed to promote leadership and continuous improvement of cultural competence education in health professions institutions. It consisted of interactive exercises, clinical cases and vignettes that focused on the knowledge, attitudes, behaviors and skills necessary for integrating cultural competence education into the curricula of the health professions schools. The sessions were facilitated by faculty from the University of California, San Francisco, and the UCSF Center for the Health Professions. The facilitators introduced the Tool for Assessing Cultural Competence Training (TACCT). TACCT is a self-administered assessment tool that can be used to identify areas in the curriculum where aspects of culturally competent care are currently taught, as well as identify gaps where specific aspects of culturally competent care are missing from the curriculum.²⁸ The tool was developed by the AAMC to assist medical schools in

meeting the LCME accreditation standards for integrating cultural competence training into the curriculum.⁸

As a preliminary step in the process of developing a cultural competency curriculum model, the ASCO Diversity Task Force sought to educate and get early buy-in to its cultural competence initiative from key decision-makers at the schools and colleges of optometry and other constituencies within the optometric profession. The task force called upon the ASCO presidents, deans and chief academic officers to employ the AAMC Tool for Assessing Cultural Competence Training to conduct an internal assessment of their institution's level of knowledge, attitudes and skills in the five domains identified as necessary for cultural competence education: 1) cultural competence rationale, context and definition; 2) key aspects of cultural competence; 3) impact of stereotyping on medical decision-making; 4) health disparities and factors influencing health; and 5) cross-cultural clinical skills.²⁸ The task force chair presented the deans and presidents with the assessment findings at the March 2007 ASCO Board meeting. Less than 50% of the institutions responded to the assessment request, but many of those that did respond indicated a less than formal approach to cultural competence education. The task force chair also presented the rationale and development/implementation strategy for the cultural competence curriculum model. The presentation reinforced the curricular emphasis on culture - not race or ethnicity - as a quality-of-care issue.

The March presentation to the ASCO Board was followed by a similar presentation in June to the chief academic officers. Between the March and June presentations the task force decided to change the focus of the project from a "cultural competency curriculum model" to the less intrusive "cultural competence guidelines." The presentation was repeated again in September at a meeting of the clinic directors to further advance the case for formalizing an approach to cultural competence education in optometry. During the same year, the AOA Optometry 2020 Summit reinforced the call for cultural competence in clinical practice. As a "preferred future," the AOA reported optometrists and their staff should possess the knowledge, skills, and attitude to serve patients of different ethnicities, native languages, age, gender, religious, and cultural backgrounds.²⁹ The business case for workforce diversity and cultural competency in the ophthalmic community was also an agenda topic at the AOA Ophthalmic Council retreat in September.

For the next year the ASCO Diversity Task Force worked to develop a set of cultural competence education and training guidelines that could be integrated across the four-year curriculum of the ASCO institutions. The task force convened a Cultural Competence Guidelines Work Group comprised of the task force chair and one other task force member, the ASCO student affairs director, and four invited outside members, including two optometry faculty members with curriculum expertise, an outside content expert from the University of California, San Francisco, and the Director of Professional Relations for the Walmart Optical Division. The work group met for the first time in August, 2007 in a two-day workshop in Rockville, Maryland to: 1) define cultural competence in the context of comprehensive health care; and 2) identify key reasons why cultural competence training is essential to the optometric curriculum. The work group collected, reviewed, and assimilated best practices of cultural competence education into guidelines that would fit the needs of optometric education and practice. It drew upon the resources provided by the UCSF Center for the Health Professions, The California Endowment, the Association of American Medical Colleges, and the U.S. Office of Minority Health.

The guidelines were based on models previously developed and tested by other health disciplines and designed with the objective of providing a curricular platform from which to better prepare optometric clinicians to address the eye and vision health needs of a multicultural and global community. More specifically, the guidelines were designed to:

- Promote a competent system of eye and vision care that acknowledges and incorporates the importance of culture, the cultural strengths associated with people and communities, and the assessment of cross-cultural relations
- Promote better understanding of strategies on how to serve diverse populations
- Foster the development of the attitudes, knowledge, and skills needed to be culturally competent
- Facilitate the clinical readiness of optometry faculty, students, and staff to respond to the health-related cultural needs of a diverse society
- Reduce access, systemic, and provider-based barriers that foster racial and ethnic disparities in health

The final draft of the proposed curriculum guidelines was presented to the ASCO Board of Directors at its June 2008 meeting. The ASCO Board formally approved the ASCO Guidelines for Culturally Competent Eye and Vision Care³⁰ and posted the 53-page document on its website (<https://www.opted.org/>). ASCO's adoption of the guidelines brought optometric education into line with other health professions - particularly medicine, pharmacy, nursing, and public health - who understood early on the relationship of cultural competency to quality care. Components of the ASCO cultural competency guidelines project have been shared at meetings of the American Academy of Optometry and the World Congress on Optometric Education.

Phase 2

In the year following adoption of the guidelines, the chief academic officers of the schools and colleges of optometry (or a

designee), members of the ASCO Diversity Task Force and Cultural Competence Guidelines Work Group, and a few other guests were invited to attend the ASCO Cultural Competence Workshop that was held in Ft. Lauderdale in May prior to the 2009 ARVO meeting. Travel, lodging and meal expenses for the invitees were covered by the Walmart grant. Nearly all U.S. schools and colleges of optometry were represented. As expected, there was a wide range in interest and experience among the 33 participants, with some appearing more ready than others to take a lead in the next phase of the process. The two-day train-the-trainer workshop was facilitated by Sunita Mutha, MD, FACP, director of the Healthforce Center at UCSF (formerly the Center for the Health Professions) at the University of California, San Francisco. Dr. Mutha was the lead author of *Toward Culturally Competent Care: A Toolbox for Teaching Communication Strategies*¹⁰ and the content expert for the Cultural Competence Guidelines Work Group.

The Cultural Competence Workshop was designed to equip participants with the tools necessary to integrate cultural competence content into the optometric curriculum. With the guidelines as a resource, the workshop featured interactive presentations and training activities to help participants acquire the knowledge and skills necessary to design coursework that could assist students in becoming culturally competent providers of eye and vision care to diverse populations. The program started with identifying the pedagogic and logistic challenges associated with adding content to the curriculum. The facilitator framed the imperative for culturally competent care and reflected on how cultural values influence encounters with others. She discussed the dimensions of culture that impact interpersonal relationships, communication, and the differences that may exist between health professionals' and patients' perceptions of health, illness and healing practices. Participants examined tools for bridging cultural differences with patients, discussed the essential components of a cultural competency training curriculum, and identified strategies for integrating cultural content into the curriculum. Workshop participants were expected to apply their training by convening meetings of their respective faculty during the summer and fall to discuss and develop institution-specific implementation plans.

The guidelines work group chair presented a post-workshop review to the ASCO Board at its June 2009 meeting. Participant evaluations indicated that more than 80% agreed or strongly agreed with the workshop objectives and the workshop itself was given a high rating for content value. With the guidelines in place and the train-the-trainer workshop done, the guidelines work group had completed its charge. Also, with diversity firmly instilled as a major ASCO priority and in recognition of the need for continuing efforts to promote cultural competence, the ASCO Executive Committee voted to transform the Diversity Task Force into the Diversity and Cultural Competency Committee (2011). The charge to the new standing committee included encouraging the Accreditation Council on Optometric Education (ACOE) to include institutional diversity and cultural competence as an ACOE accreditation standard. A new Cultural Competency Curriculum Guidelines Subcommittee was formed and charged with the continuing task of encouraging and facilitating implementation of the guidelines at all ASCO member institutions. Responding to a follow-up survey with the 2009 train-the-trainer workshop participants, the subcommittee prepared a summary text of the guidelines and a PowerPoint presentation for online access at the ASCO website.

Phase 3

The third phase of the ASCO cultural competency guidelines project was initiated in 2011 with the support of a second grant from Walmart. Phase 3 focused on the use of new strategies for implementing the guidelines at the institutional level with consideration of the unique needs and challenges of each institution. A Cultural Competency Guidelines Workshop Planning Group was formed to develop a program that could assist faculty with school-specific plans for integrating the guidelines into the activities and curriculum of the individual schools and colleges of optometry. The on-site Cultural Competency Curriculum Guidelines Implementation Workshops commenced in 2013 with seven schools participating the first year. The guidelines subcommittee chair met with the clinic directors and administrators at their 2014 fall meeting to stimulate greater interest in the on-site workshops. Two more institutions participated the second year (2014), five more in the third year (2015) and two more in the fourth year (2016). With two more institutions scheduled to participate in 2017, a total of 18 of the 23 ASCO institutions have or will have participated during the first five years in which the implementation workshops have been offered.

As a complement to the ASCO Guidelines for Culturally Competent Eye and Vision Care and following a recommendation from the Diversity and Cultural Competency Committee, ASCO introduced the Cultural Competency Case Study Competition for Optometry Students and Residents as a new ASCO award and resource. The competition, which was conducted in 2014 and 2015, was sponsored by the Diversity and Cultural Competency Committee with funding from the Walmart Optical Division. It served as a student-engaged tool for exploring and developing insight into aspects of culturally competent eye and vision care. The authors of the winning entries received a financial award of \$2,500. The seven best case studies from the two years were published and made available on the ASCO website as a downloadable compendium of Case Studies in Cultural Competency³¹ to help educate students on patient-centered attitudes, knowledge and skills leading to cultural awareness and competence.

Another new resource for eyecare practitioners also became available in 2014 with Transitions Optical's publication of *A Collaborative Approach to Improving the Eye Health of Diverse Populations*. The 2014 publication was an update to its 2009

roundtable discussion on Cultural and Linguistic Considerations for Vision Care. In 2016, Transitions Optical partnered with the National Optometric Association to release the educational paper *Eyes on Millennials: The Most Culturally Diverse Generation* that summarizes highlights from the co-sponsored “Multicultural Millennial Matters” panel presentation at the NOA convention in Chicago. The multicultural and cross-generational panel discussed eye and vision health needs through the cultural lens of minority Millennials. Transitions again partnered with the NOA in 2017 to co-sponsor the “Minority Eye Health Still Matters” panel discussion. A white paper, *Why Minority Eye Health Still Matters: A Call for Current - and Future - Eyecare Professionals to be Culturally Competent*, will soon be published and added to the “My Multicultural Toolkit.”

All publications can be accessed from the “Cultural Connections” website via “My Multicultural Toolkit” (<https://www.mymulticulturaltoolkit.com/>). The toolkit also includes a variety of other resources to assist clinicians in meeting the eye and vision health needs of culturally diverse populations.

A Continuous Process

A 2014 survey found that 95% of eyecare professionals believe a good understanding of a patient’s cultural background is constructive to providing a better patient experience.³² Furthermore, Truong et al. believe that, “Improvements in optometrist-patient relationships leading to negotiated and shared understandings of eye problems will have a positive impact on the management of ocular problems and an overall improvement in ocular health in the community.”³³ The 2016 landmark report *Making Eye Health a Population Health Imperative: Vision for Tomorrow* from the National Academies of Sciences, Engineering, and Medicine states, “cultural competency helps build concordance between patients and health care providers by challenging providers to think outside of their strict biomedical constructs and respond to the cultural barriers that inevitably arise because of patients’ diverse belief systems and views about health, health care and health care providers.”²³ The National Academies further reported that “the continuing development, implementation, and evaluation of cultural competence programs, training modules, and educational tools designed to improve the affective dimensions of communication and clinical behavior” can help increase patient-provider concordance, reduce implicit bias and respond to the cultural barriers that are inherent in diverse belief systems.

In parallel with the above perspectives, the ASCO Board-approved Optometry Diversity and Cultural Competency Committee Strategic Plan for 2010-2020 identifies cultural competence as a core value in optometric education and patient care.³⁴ The plan includes four strategic goals for institutionalizing diversity and cultural competency:

Strategic Goal 1: Encourage each of the nation’s schools and colleges of optometry to incorporate diversity and cultural competency in its mission, goals, and objectives

Strategic Goal 2: Encourage ACOE to require cultural competency education and training within the curriculum

Strategic Goal 3: Reward schools and colleges who have clearly demonstrated a sustained commitment to increasing diversity and improving cultural competency

Strategic Goal 4: Increase optometric faculty diversity

It was important to the ASCO Diversity Task Force for the curriculum guidelines to be viewed not as a short course or a one-time add-on to the curriculum, but as a continuous, progressive and integrated approach to blending the principles of patient-centered care with an understanding and appreciation of how diverse cultural constructs can affect the delivery of optometric services, the quality of patient experiences and the measurable success of clinical goals and outcomes. To this end, the ASCO Diversity and Cultural Competency Committee must continue to work aggressively in promoting cultural competence as a foundational step on the path to clinical excellence at the U.S. schools and colleges of optometry and as a critical quality-of-care measure for the optometric profession.

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Humanitarian Missions as an Adjunct to Education

W. Howard McAlister, OD, MA, MPH, FAAO, Jeffrey L. Weaver, OD, MS, FAAO, and Timothy A. Wingert, OD, FAAO | Optometric Education: Volume 43 Number 1 (Fall 2017)

It has been argued that participation in humanitarian missions is beneficial for students. Such missions may provide distinct clinical encounters as well as other educational opportunities such as experiencing global health systems, diverse cultures and medical logistical planning. For example, international humanitarian missions have been demonstrated to be useful in otolaryngology residency training, providing surgical and clinical exposure, and broadening participants' worldview.¹ Furthermore, such experience may enhance cultural competence² — the ability of medical providers and organizations to effectively deliver healthcare services that meet the social, cultural and linguistic needs of patients — a stated goal of ASCO and its member institutions. Students and residents are largely convinced of the benefits of their mission experiences. In a survey of surgical residents, all believed that participation in a humanitarian mission during residency was a positive part of their training. Specifically, they believed that missions helped them to develop as surgeons and improved their awareness of global health care and cultural competence.³ Other surveys of students and residents have produced similar results. For example, New York University general surgery residents indicated strong interest in acquiring international experience despite barriers such as scheduling conflicts and financial concerns.⁴

Despite these points of view, some faculty question the educational benefit of humanitarian missions, citing, among other factors, that participation results in considerable absence from classroom, laboratory and clinical instruction. To gain insight into this issue, we investigated the experiences of optometry students who recently participated in international humanitarian mission trips. We created a Humanitarian Missions Survey instrument and mailed it with self-addressed stamped return envelopes to 205 graduates of the University of Missouri - St. Louis College of Optometry. The recipients comprised the most recent five years' graduates of the college. The survey (**Appendix A**) asked subjects whether they had participated in a mission as an optometry student and included questions about the length and type of mission, the number of students/doctors on the mission team, and how many patients and which conditions were seen. The survey also included questions designed to determine whether mission participants found their experience to be valuable.

Results of the Survey

Of the 205 surveys mailed, 73 completed surveys were returned, for a response rate of 36%. Of the 73 respondents to the survey, 27 (37%) reported they had participated in a mission while an optometry student. Results are presented in **Figures 1-8**. According to the results, participation in a humanitarian mission primarily involved three organizations:

- Volunteer Optometric Services to Humanity (VOSH) International. Its mission is to facilitate the provision of care worldwide where it is not affordable or obtainable. VOSH International consists of optometrists, opticians, ophthalmologists, medical personnel and trained laypersons who have no political or religious agenda.
- OneSight, a Luxottica Group Foundation. This is a family of charitable vision care programs dedicated to improving the vision of people around the world through outreach, research and education.
- I CARE International. This group's goal is to improve the quality of life by providing the gift of better vision and health. It is a non-religious, non-political, organization that consists of volunteer optometrists and other professionals.

30 Participate in an International Clinical Mission While You Were an Optometry Student?

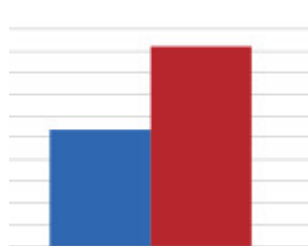


Figure 1. [Click to enlarge](#)

Which Type of Mission?

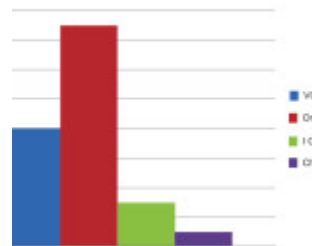


Figure 2. [Click to enlarge](#)

How Long was Each Mission?

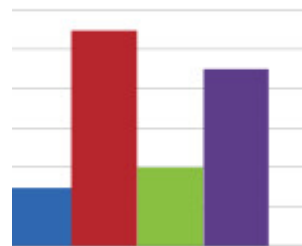


Figure 3. [Click to enlarge](#)

How Long was Each Mission?

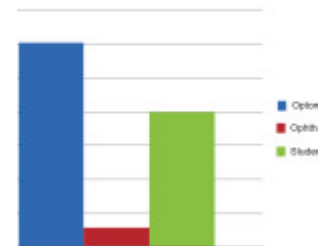


Figure 4. [Click to enlarge](#)

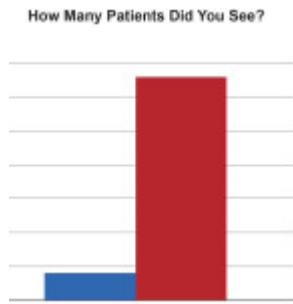


Figure 5. [Click to enlarge](#)

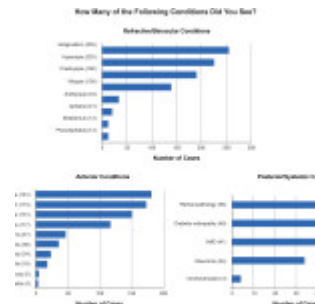


Figure 6. [Click to enlarge](#)

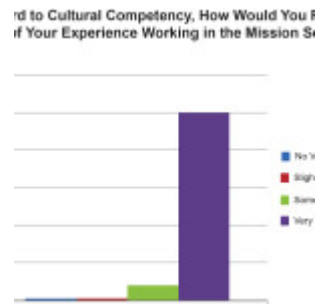


Figure 7. [Click to enlarge](#)

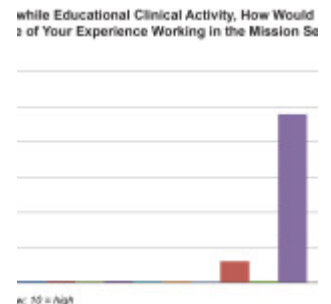


Figure 8. [Click to enlarge](#)

Based on the findings of this survey, the average clinical experience associated with a humanitarian mission is robust. With a typical team of six optometrists and four students, 820 personal patient encounters per mission, and a large number and wide array of refractive and disease conditions diagnosed, the clinical experience of the survey respondents likely exceeded the scope of most externships. When asked to rate their experience on a scale of 1-10, with 10 being the best, 24 of 27 (89%) of the respondents chose 10. Comments submitted with the survey, a sampling of which is shown in **Appendix B**, were very positive.

It has been suggested that the benefits of humanitarian missions warrant consideration as international electives,⁵ or that participation in a humanitarian mission could be credited as part of a residency or externship program.⁶ Further study of the potential benefits or drawbacks of humanitarian missions for optometry students and residents is warranted, and surveys designed to canvass students' testimony to their experiences can be a useful approach.

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APPENDIX B: Comments Received with Survey Responses

I honestly think my VOSH trip was the best thing I did in optometry school. It allowed students to see a lot of ocular conditions in a short amount of time, and the cultural experience provided for the development of more well-rounded professionals.

This trip was one of my best experiences during my time in school. The learning is unlike anything received in classes. Highly recommend!

The experience was irreplaceable to my clinical knowledge. I saw a ton of pathology, both in the anterior and posterior segment. I wish that everyone in school could go on a trip like this! It made me a much better and more experienced doctor.

I rate my experience for two weeks on a VOSH trip as more valuable than a full semester of clinic in school.

I learned more on my mission trip than 4 months of clinic time from 3rd year at UMSSL. Actually having to manage time and use skills quickly was the biggest lesson from my trip. Please continue to allow students credit for mission work.

A mission trip is worth months in the UMSSL clinic. These are difficult patients and a large volume.

I think the great value was in refractive correction. Doing retinoscopy over and over and working alongside experienced optometrists was very helpful. Clinical experience with astigmatism and pterygium-induced corneal changes in the Mexican population was helpful. Drawbacks included disease management and continuous care. While I gained much experience with direct ophthalmoscopy, dense cataracts and advanced glaucoma were present in several patients. I believe that our referral system was questionable and there is limited access to follow-up care.

It was one of the greatest experiences I have ever had both clinically and in life. I plan to take more trips as an OOI!

It was difficult to truly absorb the knowledge because of having to move so fast, but it was great for seeing a lot of pathology.

I saw way more pathology on my mission trip than during the entirety of school clinic rotations.

The mission allowed the students to see ocular pathology that is typically only seen in textbooks, including rare diseases and untreated injuries and conditions. I've never had that opportunity in the U.S. because of our healthcare system. I was exposed to more during this mission than in any of my internships.

From both a cultural and clinical aspect, I gained experience and knowledge that the classroom cannot replicate. The week I spent in Central America was just as educational as my 8 weeks at the UMSSL clinic where I was lucky to see 5 patients in one day. If the staff of UMSSL College of Optometry is to give students a well-rounded clinical experience, then those who are fortunate enough to participate in a mission trip are ahead of the curve.

I would encourage any student to take on the opportunity. Compared to a single rotation at one of UMSSL's current internal rotations, this one mission trip was far more beneficial and a good use of my clinic time.

One of the best experiences of my life, both educational and personal.

[Appendix B. Click to enlarge](#)

APPENDIX A: Humanitarian Missions Survey

Did you participate in an international clinical mission while you were an optometry student?
 Yes
 No

If your answer is no, please do not answer the remaining questions and return your survey in the enclosed envelope. Thank you for your help with this project.

Which type? (Check all that apply)
 Vision International
 Christian
 Fellowship of Christian Optometrists
 Other, please specify _____

How long was each mission?
 2 – 5 days
 6 – 8 days
 9 – 11 days
 12 – 14 days
 Other, please specify _____

How many optometrists were on your team?

How many optometricologists were on your team?

How many students were on your team?

Please estimate how many patients you saw.
 Personally
 Team

Please estimate how many of the following conditions you saw:

<input type="checkbox"/> astigmatism	<input type="checkbox"/> diabetic retinopathy
<input type="checkbox"/> hyperopia	<input type="checkbox"/> dry eye
<input type="checkbox"/> myopia	<input type="checkbox"/> glaucoma
<input type="checkbox"/> amblyopia	<input type="checkbox"/> keratitis
<input type="checkbox"/> advanced eye lesions	<input type="checkbox"/> iridocyclitis
<input type="checkbox"/> endophthalmitis	<input type="checkbox"/> penicilliosis
<input type="checkbox"/> IACD	<input type="checkbox"/> retrobulbar/orbital cellulitis
<input type="checkbox"/> strabismus	<input type="checkbox"/> orbital pathology
<input type="checkbox"/> cataracts	<input type="checkbox"/> strabismic amblyopia
<input type="checkbox"/> cataract	<input type="checkbox"/> other
<input type="checkbox"/> conjunctivitis	<input type="checkbox"/> Other, please list _____
<input type="checkbox"/> external foreign body	_____
<input type="checkbox"/> internal foreign body	_____

In regard to cultural competency, how would you rate the value of your experience working in the mission setting?
 Very valuable
 Somewhat valuable
 Slightly valuable
 Of no value

As a worldwide educational clinical activity, how would you rate the value of your experience working in the mission setting?
 _____ (from 1 to 10 with 1 being low and 10 being high)

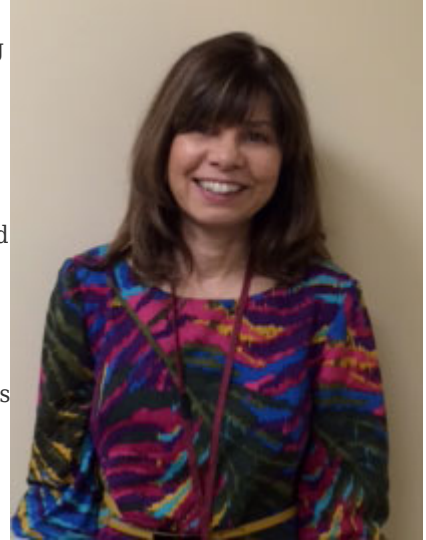
Appendix A. Click to enlarge

Achievement of Cultural Competency is an Ongoing Process

Aurora Denial, OD, FAAO | Optometric Education: Volume 43 Number 1 (Fall 2017)

This edition of the journal focuses on cultural and linguistic competency and diversity. Healthcare educators have long recognized the importance of this topic. Understanding cultural competency concepts along with demographics and racial/ethnic diversity in the United States can be helpful to educators in preparing students for current and future optometric practice.

Betancourt has defined cultural competence as the ability of providers and organizations to effectively deliver healthcare services that meet the social, cultural and linguistic needs of patients.¹ Betancourt defines culture as “an integrated pattern of learned beliefs and behaviors that can be shared among groups and includes thoughts, styles of communicating, ways of interacting, views of roles and relationships, values, practices, and customs.”² Betancourt further states that both patients and practitioners are influenced by multiple cultures.² Campinha-Bacote describes cultural competency as a continuum, which implies continual growth and development.³ Cultural competency implies tolerance, defined by the Webster’s dictionary as “recognizing and respecting others’ beliefs and practices without sharing in them.”⁴



Aurora Denial, OD, FAAO

By the Numbers

The population of the United States is constantly in a state of growth and movement. The Census Bureau reports that as of July 2016, the U.S. population was estimated to be 323,127,513 people.⁵ This represents an increase of 4.6% since July 2010.⁵ The Millennial generation (ages 18 to 35) is the largest living generation, estimated at 79.8 million people. In comparison, it is estimated that there are 74.1 million Baby Boomers (ages 52 to 70).^{6,7} The Millennial generation is racially and ethnically diverse with 43% reporting to be non-white.⁶ Additionally, this generation tends to be the most-educated generation.⁷ In 2016, 40% of employed Millennials ages 25-29 had at least a bachelor’s degree.⁸ In comparison, in the same age range, 32% of Gen Xers, 26% of Boomers and 16% of Silents held bachelor’s degrees.⁸ In the overall population, from 2011-2015, 86.7% of the population had graduated from high school and 29.8% had earned a bachelor’s degree.⁵ In 2015, the median household income (in 2015 dollars) was \$53,889 with 12.7% of persons living in poverty.⁵ In 2015, 49.2 % of the population was male and 50.8% was female.⁵ From 2011 to 2015, there were 20,108, 332 veterans and approximately 10% were female.⁵

The U.S. Census Bureau also states that in 2016, 61.3% of the population was reported as white alone, 13.3% as black or African American, 5.7% as Asian and 17.8% as Hispanic or Latino.⁵ In the future, immigration will play a large role in the changing demographics. In 2010, it was projected that over the next 40 years, whites will no longer be in the majority and the minority population will exceed 50%.⁹ New Asian and Hispanic immigrants will support the changes, with Asian immigrants as the largest new group of immigrants.⁷

Staying the Course Toward Cultural Competency

Although cultural competency concepts and teachings have been discussed and implemented for years, it is still important to be attentive to current attitudes and policies. For example, despite gains made with the Affordable Care Act (ACA), disparities in health care still exist for most racial and ethnic groups as well as low-income groups.^{10,11} These disparities include “access to and utilization of care, health status and health outcomes, and health coverage.”¹¹ With the population becoming more diverse, it is essential to bridge the gaps in healthcare equality. Providing culturally and linguistically competent health care may improve quality of care and outcomes and decrease disparities. If disparities are not addressed, in the future we will be caring for a larger number of patients who are sicker with poorer prognoses.

The current political landscape has potential to influence future trends in cultural competency. Recent changes in immigration policies and challenges to the ACA and deferred action for childhood arrivals (DACA) policy, along with what I have observed to be a growing intolerance of those who may be different, have significant potential to influence society's views on tolerance. Culturally competent care involves identifying and putting aside our inherent biases and treating all patients with dignity and respect. As educators and healthcare providers we should all strive to be tolerant and move on the continuum for cultural competency.

In This Edition of the Journal

Among the resources in this edition of the journal is a [chronicle of the activities of the ASCO Diversity and Cultural Competency Committee](#) in its role and efforts towards improving diversity and cultural and linguistic competency in the schools and colleges of optometry. Also, Guilherme Albieri, PhD, in his paper "[Cognitive Strategies to Improve Patient Care in Cross-Cultural Settings](#)," provides tools for regulating a provider's emotional responses, which can influence the care he or she provides. And Navjit Sanghera OD, FAAO, in "[Developing Military Cultural Competency to Better Serve Those Who Have Served Us](#)," gives insight into the culture of the military and how to deliver culturally competent care to veterans.

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Diversity, Inclusion, Cultural and Linguistic Competence: Do We Have a Strategy?

Gary Y. Chu, OD, MPH, Guest Editor | Optometric Education: Volume 43 Number 1 (Fall 2017)

Over the past 20 years, health professions schools have considered and wrestled with the importance of diversity and the teaching of cultural and linguistic competence. As the U.S. population becomes increasingly diverse, more health agencies are seeking to have a workforce that reflects the general population in terms of race, ethnicity and socioeconomic background.¹ The profession of optometry is not immune to this trend.

In 2005, ASCO recognized this trend and formed a task force to address the issue. In 2011 the task force became a standing committee within the Association's structure. This strategic change is to be commended. The committee's charge was to address cultural competency and diversity within the schools and colleges of optometry. We have made great strides in teaching cultural and linguistic competence — as illustrated in “[The Path to Cultural Competence in Optometric Education and Practice: a Timeline to Multicultural Clinical Excellence](#)” — and in decreasing the gender divide. However, we have not made significant strides in the racial and ethnic diversity of our student body, our faculty or the leadership of the profession. (See “[Diversity in our Colleges and Schools of Optometry.](#)”) Simply put, the make-up of our profession and optometry schools does not reflect the diversity of our nation.¹

Seeing the Whole Picture

It is true that all health professions have been woeful in addressing the gap between the racial and ethnic composition of society and the racial and ethnic composition of their institutions of education. However, many have a defined strategy, as do many Fortune 500 companies who understand that diversity is important to their success.² Common to these efforts is the understanding that diversity and culture, as well as inclusion, are related in our quest for cultural competence, but they have separate definitions. Diversity is generally defined as the condition of having or being composed of differing elements; whereas, culture is defined as an integrated pattern of human behavior that includes, but is not limited to, thought, communication, languages, beliefs, values, practices, customs, courtesies, rituals, manners of interacting, roles, relationships and expected behaviors of an ethnic group or social group whose members are uniquely identifiable by that pattern of human behavior.³ Many of us default in our thinking and equate culture and diversity with race and ethnicity. But our thinking should include sexual orientation, religion, age, etc.

Furthermore, many universities and large companies have set up an Office of Diversity and Inclusion, with the realization that diversity and inclusion are separate terms with different definitions. We tend to easily notice the word diversity but quickly skip over the word inclusion. As explained by Andrés Tapia, the Global Diversity & Inclusion Solutions Leader for Korn Ferry Hay Group: *Diversity is the mix; inclusion is making the mix work.*⁴ A workforce, a student body, a profession may be diverse, but if minority groups (all forms) are not included in decision-making or leadership roles then segregation is the result and the benefits of diversity are not achieved. Before the value of diversity can be appreciated, organizational and individual commitment to having all groups heard and understood must be present. This inclusion must also entail opportunities for participation in leadership roles so that all may learn from the experiences of a diverse group of individuals.

Where Do We Go from Here?

How can we change the diversity of our health professions? It is unrealistic to believe that setting up a committee with committed individuals and a charge will instantaneously usher change. Change comes slowly, and it takes a concerted effort. Making change a reality requires time and a profession-wide organizational commitment to diversity, inclusion and cultural competence from practitioners, leadership (AOA, AAO and ASCO) and each school and college of optometry. Currently, we are far from our ideal! However, with sound strategy and defined goals that translate to defined results, we will one day make great strides to improve this great profession, which is definitely a worthy endeavor!

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