

PEER REVIEWED

Cross-Cultural Communication in Optometry

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Abstract

Providing culturally competent care is one crucial component to providing equitable health care and reducing healthcare disparities. Cultural competence in healthcare is defined as the ability to deliver healthcare services effectively, while taking into account the social, cultural and linguistic characteristics of patients. This teaching case report outlines two cases in which a patient-centered approach was taken to diagnose and manage each patient. Relevant cultural competence topics and communication strategies used in each patient encounter are discussed.

Key Words: *cultural competency, cultural competence, communication models, sociocultural determinants of health, alternative treatment*

Background

Culturally competent care has become a pillar in patient-doctor interaction to reduce healthcare disparities. Cultural competence is defined as the ability to effectively deliver healthcare services that takes into account the social, cultural and linguistic characteristics of the patient.¹ To deliver such care, a clinician should exhibit cultural humility, a process of self-reflection and self-critique whereby individuals not only learn about another's culture, but start with an examination of their own beliefs and cultural identities.² Though culture is often associated with race, a social construct based on physical appearance, it is also associated with ethnicity, belief systems, gender, family traditions, language, nationality and ancestry.^{1,2}

This teaching case report explores various concepts, such as belief systems, implicit bias and social determinants of health, as well as communication models that can be used in an optometry setting. In a healthcare setting, communication models are defined as the conceptual process of sending and receiving messages from one person to another with the goal of promoting health. An essential part of effective communication in health care comes with the understanding of the wider patient context, taking into account potential barriers to care as well as cultural beliefs. Our health is influenced by access to social and economic opportunities, community and educational resources and the quality of our water, air and physical environment.^{3,4} Some of the social determinants described in this case report are sociocultural belief systems, norms and attitudes, income, education, transportation, language, literacy and social supports.

Case Descriptions

Case 1

A 71-year-old male presented for a comprehensive eye exam with a complaint of blurry vision after breaking his glasses. His last eye exam had been 2 years ago at an outside facility. He remembered being told he has glaucoma and was prescribed a drop to use once per day for treatment. He said he tried the drops for a short time and self-discontinued as he didn't think "the drop worked."

His self-reported systemic history was remarkable for stomach cancer. He recounted that the condition was diagnosed in a late stage and resulted in the surgical removal of 85% of his stomach. He reported “nobody listened to me when I said I was in pain” and was told he had only 2 years to live at the time of diagnosis. He reported not believing his doctors and used “natural treatment” instead, which helped him get to full remission after the surgery. He reported that in the 10 years since the surgery, he had not taken any prescription medications and he followed a diet consisting of organic and natural products.



Figure 1. OCT of the retinal nerve fiber layer OU at initial visit (case 1).
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Upon examination, pupil testing, extraocular muscle movement testing and confrontation visual field testing were all unremarkable. Visual acuity was correctable to 20/20 in both eyes with a myopic refraction. Slit lamp examination revealed open iridocorneal angles with intraocular pressure (IOP) of 21/20 mmHg OD/OS via Goldmann applanation tonometry at 10:23 a.m. Fundus examination showed a cup to disc ratio judged as 0.8H/0.8V OD and 0.7H/0.7V OS with a superior notch noted OS. Retinal nerve fiber layer (RNFL) testing with optical coherence tomography (OCT) revealed severe RNFL thinning superiorly in the right eye and borderline superior and inferior thinning in the left eye (**Figure 1**).

Humphrey visual field testing (24-2 SITA Standard) was performed on the same day. The test was unreliable in the right eye due to high false positives and showed isolated nasal defects (**Figure 2**). The left eye testing was reliable and showed an early superior nasal step and an inferior nasal step consistent with the superior notch in the left eye as well as the RNFL thinning observed on OCT.

Considering the borderline elevated IOP and the defects seen on OCT and visual field testing, a diagnosis of primary open angle glaucoma was made. When the patient was informed about the diagnosis, he reported he already knew he had glaucoma and expressed interest in learning about the pathophysiology of the disease as well as the treatment options. We reviewed the disease process and the absence of symptoms in the early stage of the disease, which we explained may have been a reason why he had not felt any difference when using prescribed eye drops previously. We also offered selective laser trabeculoplasty as an alternative treatment option. The patient declined the laser option immediately as he reported his mother had diabetes and had received a laser treatment that caused her to be in pain. We explained the differences between the treatment procedures, including noting a different type of laser is used, and attempted to reassure the patient that pain was not likely to be a side effect. However, the patient reported that he did not trust nor believe this information, as he recalled seeing his mother in pain when he was a child. He expressed understanding and acceptance of his condition, but said he preferred to try natural treatments. At the end of the visit, the plan was for him to return in 2 months to repeat the visual field test and to discuss treatment options further.



Figure 2A. Humphrey visual field testing (24-2 SITA Standard) in the right eye at initial visit (case 1).
[Click to enlarge](#)



Figure 2B. Humphrey visual field testing (24-2 SITA Standard) in the left eye at initial visit (case 1).
[Click to enlarge](#)

At the follow-up visit, the patient said he had some back pain and preferred not to repeat the visual field test that day. IOP was 19/20 mmHg OD/OS via Goldmann applanation tonometry at 11:07 a.m. He also mentioned he did some reading online and found papaya seed to be an effective treatment for glaucoma. He said he planned to crush the papaya seed into a powder and drink the powder daily. Upon hearing this, the doctor did a rapid internet search in front of the patient, which revealed some

antioxidant properties, but no strong scientific evidence on treating glaucoma. The optometrist explained the lack of robust scientific evidence for papaya seed in contrast with conventional treatment. The patient insisted on trying the treatment, drawing parallels to his cancer treatment. The optometrist respected his decision to try papaya seeds first, and made a plan to see the patient again in 2 months to monitor whether there was any IOP reduction and to repeat the visual field testing. The patient agreed to this plan.

At the 2-month follow-up visit, IOP was lower and measured 15/15 mmHg OD/OS at 1:30 p.m. Physiological diurnal variation in IOP as a cause for the reduction was described, but the patient believed that the papaya seed treatment was the cause. The discussed plan was to continue with this treatment and return in 3 months.

At the follow-up visit 3 months later, IOP at 9:17 a.m. was elevated again at 20 mmHg in each eye. The patient reported the reason was because he had not been compliant with his papaya seed treatment. He explained that he was not feeling well due to deep vein thrombosis in his leg and did not have the energy to crush papaya seeds for the past month. The optometrist expressed empathy and understanding of his difficulty. The option of using a glaucoma eye drop daily as a more convenient alternative was brought up. However, the patient declined this option on the basis of his preference for “natural” treatment and wanted to try papaya seed again. A 1-month follow-up appointment was made to monitor IOP.



Figure 3. OCT of the retinal nerve fiber layer OU at a follow-up visit several months after initial presentation (case 1). [Click to enlarge](#)

At the follow-up visit 1 month later, IOP was 20/18 mmHg OD/OS at 9:43 a.m. despite the patient drinking crushed papaya seed daily. The patient again declined visual field testing due to back pain, but OCT was repeated. It showed further RNFL thinning in the inferior quadrant OS, but the signal strength was low (**Figure 3**). We showed the patient the results and explained limitations of the test due to signal strength variability. It was also explained to the patient that without the visual field test, the doctor cannot accurately assess whether his eye pressure in the past few months caused further damage to his optic nerve and loss of side vision. Hence, it was strongly advised that he now start a proven treatment to lower his IOP, as that is an evidence-based approach to prevent further loss of nerve tissue. After careful consideration, the patient agreed to start treatment with latanoprost every night before bedtime OU with a plan to return in 2 months to recheck the IOP.

A telemedicine visit was conducted 7 months later due to concern of coming to the clinic during the coronavirus pandemic. The patient at that visit reported using the treatment for a few months before stopping it as he did not feel comfortable leaving his house to pick up his medication. The optometrist discussed the option of mailing the drops to his house, and the patient agreed. The patient has since not returned for follow-up.

Case 2

A 54-year-old male presented with a complaint of eyelid irritation associated with puffy eyelids of both eyes for several years. His last eye examination was 1 month ago by an outside ophthalmologist who specializes in corneal disease. He reported prior treatments did not relieve his symptoms and even exacerbated them; therefore, he was not currently trying anything for relief. These recommendations included: warm compresses twice daily, generic artificial tears 4 times per day, short course of doxycycline 2 years prior, preservative-free Refresh Celluvisc artificial tears 4 times per day, Avenova spray daily, erythromycin ointment at night, Restasis twice daily, and cleaning eyelashes with SteriLid cleanser twice daily. His best-corrected visual acuity in each eye was 20/30. Pupil testing, extraocular

muscle movement testing and confrontation visual field testing were all unremarkable. Slit lamp examination revealed severe inspissation of both lower eyelids, telangiectasia at the lid margins, significant collarettes on lashes, and pinguecula (quiet, no inflammation) in both eyes. Of note, there was no keratopathy on examination. On dilated evaluation, there was mild nuclear sclerosis in both eyes, with normal optic nerve and retinal appearance in each eye.

At the end of the examination, the optometrist explained to the patient in Spanish (the language spoken at home), that he had mild cataracts causing some reduction in vision, as well as chronic blepharitis, which was the main contributor to the patient's irritation. He was given a Cliradex brochure and advised to begin cleaning his eyelids with Cliradex twice daily followed by warm compresses and lid massage. Management options for the cataracts were also discussed, including monitoring for progression and further visual involvement or referral to an ophthalmologist for surgical consultation. The patient was not interested in cataract surgery and was asked to return to the clinic in 2 weeks for a follow-up examination.

At the follow-up visit, the patient reported he had been unable to purchase the Cliridex eyelid cleaner because his pharmacy and grocery store did not have it. He explained that he tried to ask the pharmacist whether the item was temporarily out of stock or something the store did not typically carry, but a language barrier hindered his ability to do so. The pharmacist was unable to answer his questions. He also explained that he called the phone number on the brochure but was unable to purchase the Cliradex as the representative on the phone did not speak Spanish. Upon further questioning about social supports and his living situation, the patient said he lived alone and did not own a smartphone or computer, which meant he could not purchase online. The patient denied any worsening of symptoms or vision since his last visit. His visual acuity was unchanged, and clinical examination remained stable. After talking with the patient further, the optometrist suggested the option of using a computer at the library nearby to purchase the lid wipes. The patient revealed that he didn't know how to use a computer and was concerned about a potential language barrier with the librarian. He also expressed his disappointment that all of the previously recommended treatment options did not help and even worsened his symptoms. He reported having an allergic reaction to everything he had tried. He then expressed his overall frustration with unrelenting symptoms and multiple medical appointments with various specialists. After listening to all these concerns, the optometrist asked the patient, "What do you think is causing this problem? Do you have any thoughts on why your condition isn't improving?" It was not until this moment that he revealed accidentally getting aloe vera lotion in his eyes 4 years ago, which he thought was still there causing irritation. The optometrist then offered to flush his eyes out with saline solution in the exam room as a means to remove any debris or irritants that may be present. After the saline flush, the patient noted some improvement in symptoms. Additional management options were discussed with the patient, such as LipiFlow thermal pulsation and BlephEx procedures, but it was explained that he would need to be referred to a nearby practice for these procedures. The patient was interested in exploring these options and agreed to the referral. The patient was asked to return to the clinic in 2 months to monitor for improvement in symptoms. At the end of the visit, the optometrist walked the patient to the behavioral health department to enlist the help of a social worker who was fluent in Spanish to assist with the Cliradex lid wipes purchase.

At his 2-month follow-up visit, the patient reported that he was able to purchase the Cliradex eyelid wipes with assistance from the social worker, but he stopped using them because they irritated his eyes. He noted that he underwent the BlephEx procedure at the outside practice, which helped to resolve his symptoms. He mentioned that an interpreter was used throughout the visit, and explained that the outside optometrist said it was acceptable to use diluted baby shampoo for daily lash cleaning/maintenance. Because his symptoms were resolved, the optometrist recommended the patient schedule his next comprehensive exam, but reminded him that if any symptoms arose sooner, he could schedule a visit for evaluation.

Educator's Guide

The Educator's Guide includes the necessary information for teaching and discussing the case.

Key concepts

1. Definition of culture and the influence of cultural beliefs in eye care
2. Implicit bias and its impact in health care
3. Understanding of various social determinants of health
4. Communication models used in healthcare
5. Cultural competence and cultural humility as a means to reduce healthcare disparities

Learning objectives

Upon conclusion of this case discussion, participants should be able to:

1. Apply critical-thinking skills to correlate how cultural beliefs may impact patient behaviors and clinicians' decision making
2. List various social determinants of health that may impact health outcomes
3. Describe examples of implicit bias that can contribute to healthcare disparities as well as various strategies to minimize healthcare clinicians' own biases
4. Have an understanding of various communication models used throughout healthcare in cross-cultural encounters

Discussion questions

A. Knowledge, concepts, facts and information required for critical review of the case:

1. Define the term "culture"
2. Describe differences between biomedical and sociocultural modes of thinking in health care
3. Define implicit bias
4. Describe different types of questions that can be asked and information that can be elicited when using various communication models in health care

B. Patient communication:

1. How might eliciting a chief complaint and history be influenced by a patient's cultural beliefs?
2. What communication strategies were used for patient communication in these cases?
3. Were family members and/or interpreters involved in these cases? How do you think this may or may not have impacted the encounter?

C. Critical-thinking concepts:

1. How might cultural differences between the patient and the doctor impact the clinician's decision-making in these cases?
2. Did the management of these cases take into account various social determinants that may impact the patient's care? Could anything have been done or communicated differently? Could another communication model be used in each of the cases?
3. What are some possible assumptions that could have existed with these cases?
4. How can optometrists balance practicing evidence-based medicine with respecting patients' cultural beliefs when they differ?
5. How might optometrists' decision-making be impacted by their own implicit bias?
6. How could an optometrist manage a patient with a condition requiring urgent treatment (e.g., a

macula-on retinal detachment) if the patient does not have trust in the plan put forth by the doctor?

D. The role of the optometrist in reducing healthcare disparities:

1. What could be potential outcomes if care is not provided in a culturally sensitive manner?
2. What are some examples of scenarios in which optometrists might refer to other healthcare professionals or community resources to help provide culturally sensitive care with the goal of improving patient outcomes?
3. How might the patient care outcomes in these cases contribute to healthcare disparities?
4. How do we, as a profession, help reduce healthcare disparities?

Teaching instructions and assessment methodology

The purpose of this case report is to help clinicians review case examples that highlight various ways cultural influences may impact eye care. Optometry students and residents can be guided through a discussion in a classroom, clinical or virtual setting. They should be presented with case details in a stepwise fashion (i.e., case history, clinical examination, treatment and management plan) to think critically through the clinical presentation and consider possible cultural influences throughout the encounter. The key aspects of patient communication can be discussed, including eliciting a chief complaint and history, asking open-ended questions to understand patients' beliefs about and understanding of the condition, the clinical encounter and decision-making in diagnosis and management.

The assessment of the learning objectives for this case report can be accomplished in several ways. Students presented with case examples should be able to describe cultural factors that may have influenced the patients' and doctors' viewpoints during the examination, any social determinants of health that were considered, and which communication strategies were used to provide culturally sensitive care. Furthermore, assessing students' knowledge of different communication models and example verbiage could be accomplished using role-playing. This would also be helpful in evaluating a student's ability to elicit and address a patient's concerns, belief systems and understanding of disease and treatment plan.

Discussion

These cases highlight various social determinants of health and core concepts involved when providing culturally competent care, such as the importance of patient communication and negotiation in clinical practice. While both cases highlight the importance of eliciting patients' concerns about their conditions and recommended management plans, case 1 emphasizes the patient's social and cultural belief system and case 2 highlights language barriers and social support systems. A discussion of the impact of these factors, along with an exploration of implicit bias in health care is described below.

Sociocultural belief systems

In Western countries such as the United States, a conventional approach to medicine is predominantly biomedical, which focuses on biology, physiology and disease.⁵ A biomedical focus often excludes psychological, environmental and social influences, which can have a great impact on one's health and healthcare outcomes. Alternatively, a sociocultural approach involves understanding of the patient's perspective on illness, psychosocial context and values and beliefs with respect to the disease process and treatment plans.⁶ In instances when a patient's spiritual beliefs, superstitions, or preference for prayer, medication, herbal therapy or alternative treatments may result in negative healthcare outcomes (from under-treatment of disease), culturally competent communication becomes essential.

The sociocultural beliefs in case 1 were likely rooted in the patient's previous negative experience with

the healthcare system. This resulted in a low trust of healthcare professionals and conventional medical treatment options. He had reported success treating previous diseases using alternative treatments, which furthered his conviction of the efficacy of such treatments. His own research led to his belief that the use of papaya was a viable treatment for glaucoma. Papaya seed is known to have a high concentration of lutein and zeaxanthin, which have been shown to have neuroprotective properties in some studies.⁷ However, the scientific evidence supporting glaucoma treatments such as selective laser trabeculoplasty or prostaglandin analogs is much stronger. Therefore, the clinician was faced with the dilemma of practicing evidence-based medicine vs. providing culturally competent care, and thus had to negotiate a treatment plan with the patient. The ultimate goal in these situations is to achieve optimal health outcomes, which can only be done by building a trusting relationship with the patient. Considering that glaucoma is a slowly progressive disease and in this case the patient's visual field defects were not threatening central vision, the clinician had time to build rapport with the patient and work together to try alternative treatment options.

Social determinants of health

Social determinants of health are conditions in which people are born, live, work and age that affect their quality of life, functioning and overall well-being.⁴ In other words, they are non-medical factors that affect healthcare outcomes. They can be subdivided into social and physical categories (**Table 1**). Examples of social determinants include access to education, job opportunities, social supports and community resources, access to mass media and technology, and social norms and attitudes, which may involve discrimination, racism and a distrust of government. Examples of physical determinants include housing, schools, workplaces, built environment (such as buildings, roads, sidewalks, bike lanes), exposure to toxic substances, and accessibility for people with disabilities.⁸



Table 1. [Click to enlarge](#)

In case 2, various social determinants affected the patient's ability to start the recommended treatment plan. They included lack of technology (computer or smartphone with internet access), lack of social supports (family or friends able to help purchase over-the-counter eyelid wipes) and lack of linguistic competence (language barriers) in the healthcare system (pharmacist). Community and social integration was also considered when the optometrist suggested to the patient that he try to use a computer at the library. The patient's inability to use a computer independently combined with language barriers in the community (librarian, pharmacist) affected his ability to access some of his treatment options. Ultimately, availability of the social worker who was fluent in Spanish had a significant impact on the quality of care provided, and the patient was able to purchase the lid wipes to start to address his chronic meibomitis. Also, the referral for BlephEx treatment at an outside facility helped alleviate symptoms completely.

Implicit bias

Implicit bias, or unconscious associations and judgements, can lead to negative decisions and evaluations of people on the basis of irrelevant characteristics such as race, perceived gender or preferred language.⁹ It is important to note the difference between "implicit" bias, which is unconscious, automatic and unintentional, and "explicit" bias, which is consciously held and self-reported. The authors intentionally left out the patients' races in the case descriptions so as not to impart bias to the reader prior to reading the entirety of the case. There has been a recent movement in the scientific community "to encourage the use of language to reduce unintentional bias in medical and science literature."¹⁰ Therefore, we are introducing the patients' races only in this discussion portion where it is more relevant to add context. In both cases, implicit bias related to race may have played a crucial role in the patients'

past healthcare experiences. The patient in case 1 self-reported as African American, and the patient in the second case self-reported as Hispanic.

In the United States, implicit bias has been well-documented as one cause contributing to racial healthcare disparities. As an example, ethnic minority groups receive fewer procedures and poorer quality medical care than White people, and these differences persist even after differences in health insurance, social economic factors and severity of disease are taken into account.¹¹ Todd et al. found that 43% of Black patients presenting to the emergency room with a broken bone received no analgesic vs. 26% of White patients.¹² In a survey of 720 physicians who were presented with photos of hypothetical patients with the same medical information, Black patients were less likely than White patients to be referred for cardiac catheterization.¹³ Implicit bias has been associated with more clinician verbal dominance in the patient encounter, less patient-centered dialogue and lower perception of respect from the clinician.¹⁴ Similarly, it has been reported that professionals tend to associate Hispanic/Latino/Latina people with not taking responsibility for their medical care, non-compliance with treatment recommendations and risky behaviors.¹⁵⁻¹⁷ Hispanic people have also rated their access to care significantly lower than Whites and were not as satisfied with healthcare services.^{18,19} Also, Spanish-speaking parents have reported less satisfaction with their clinician communication compared to bilingual parents, which resulted in overall dissatisfaction with the medical encounter.²⁰

Though the doctors in these cases took a deliberate, patient-centered approach and applied their knowledge of various cross-cultural communication methods, it is possible that their own implicit biases may have influenced their communication and decision-making.

One approach to reducing healthcare disparities includes recognizing, understanding and addressing implicit biases in health care.^{21,22} Various strategies for clinicians and systems have been described, including but not limited to:

- Having a basic understanding of the cultures from which patients come
- Intentionally communicating in an inclusive, respectful and welcoming manner
- Perspective-taking and having empathy (which can improve patient satisfaction)
- Recognizing and understanding the impact of implicit bias; avoiding stereotyping of patients
- Having good emotional regulation skills (positive clinicians may be more inclusive)
- Using partnership-building skills (clinicians and patients taking a “team approach” to care)
- Understanding various communication models (e.g., RESPECT)
- Dedicating time to participate in diversity and bias training
- Implementing quality improvement initiatives

Further research is needed to determine how healthcare professionals’ attitudes and biases contribute to patient-doctor interactions, quality of care, continuity of care and treatment adherence. Though implicit bias of any clinician cannot be measured in these cases, it is possible that implicit bias might have played an important role in the patients’ experiences. In case 1, the patient remembered his complaint not being taken seriously, which resulted in a late diagnosis of cancer. He also recalled witnessing a painful laser treatment his mother received, which may have resulted in mistrust of doctors and conventional medical treatment in general. In case 2, if the optometrist had made discriminatory assumptions about the patient based on his race, such as he would be uninterested in or unable to pay for the BlephEx procedure, the referral may not have been recommended as an option for the patient and his symptoms may not have improved.

Communication models

Communication skills, situational awareness and adaptability during the medical encounter are important elements of providing patient-centered, culturally competent care.²³ The Association of American Medical

Colleges and the literature describe various cross-cultural communication models that identify practical ways healthcare professionals can be empathetic, reflective and engage with patients with diverse cultural backgrounds.²⁴ Examples include the BATHE model, BELIEF, ETHNIC, LEARN, and the EYECARE model specific to optometry.²⁵ In the cases reported here, the models used were RESPECT,²⁶ Negotiating Explanatory, Kleiman's, and Social Context "Review of Systems."²⁴

Depending on the clinician's goal or function of the communication, whether it be building a relationship with the patient, collecting information during case history, clinical decision-making or assessing treatment-related behaviors, different communication models can be used at various points during a clinical encounter.²⁷ The key to managing the patient in case 1 was the use of the RESPECT and Negotiation models to work together with the patient to come to an agreed upon treatment plan. The clinician used the RESPECT communication model to gain trust and gather information from the patient. The RESPECT acronym stands for Respect, Explanatory, Social and Spiritual, Power, Empathy, Concerns and Trust. This focuses on individualized, patient-centered communication, which in this case, helped the clinician better understand how the patient's past experience shaped his perception of medical care (**Table 2**). When discussing the treatment plan, the Negotiation explanatory model was used (**Table 3**).²⁸ It engages patients in shared decision-making. The negotiation model of communication can help clinicians understand patients' cultural beliefs, understanding of illness/disease and how those may affect acceptance of the plan of care. This model can guide the doctor when a patient's preferred treatment plan diverges from conventional, evidence-based medicine. Clinicians must ensure that the patient understands the diagnosis and prognosis and is able to make an informed decision. In case 1, the patient was able to explain in his words the disease process of glaucoma and carefully reviewed his test results after each visit. The patient took into consideration the slow progression of the disease and expressed his desire to use natural treatment. At this point, talking over him or disregarding his convictions would have added to his negative experience with healthcare professionals. Using this model, a joint decision was made to try natural treatment first, but to be open to the possibility of using a medical treatment in the future if the condition worsened.



Table 2. [Click to enlarge](#)



Table 3. [Click to enlarge](#)



Table 4. [Click to enlarge](#)



Table 5. [Click to enlarge](#)

The two communication strategies used in Case 2 were Social Context "Review of Systems" (**Table 4**) and Kleinman's Questions (**Table 5**). The Social Context "Review of Systems" approach frames questions during a "review of systems" around a patient's social and physical environment, such as asking questions about languages spoken at home, potential language barriers during medical appointments, living environment, social stressors and support systems. By using this patient-centered model of communication, a clinician can elicit information about potential social determinants of health that may affect care. In case 2, the doctor used this model to gain information about language barriers in the community, living environment at home (no access to internet or computer to make an online purchase), technological literacy (unable to use computer at library) and support network (patient lived alone, regularly met with social worker at the health center). The second communication model used was Kleinman's Questions, also known as Kleinman's Explanatory Model, which helps clinicians gain insight into patients' cultural beliefs and worldviews and can help build trust between the patient and doctor.²¹ By asking questions phrased to elicit information about the patient's experience of illness, beliefs about causes of the symptoms, specific concerns and expectations of treatment and typical behaviors when ill, clinicians can gain insight into the patient's social context, belief systems and spirituality and possible barriers to care. In case 2, by using Kleinman's Questions, the optometrist gained perspective on what the patient believed was causing his ocular symptoms (aloe vera he accidentally got in his eye years ago) and why he thought his symptoms were not improving with recommended treatment options (he believed it was still in his eye causing the problem). Though the

aloe vera was not the actual cause of the patient's symptoms (rather, his chronic blepharitis was), after hearing the patient's explanation, the doctor devised an alternative management plan (flushing the eye out with saline) in order to address the patient's concerns. After doing so, the patient reported some improvement in comfort and less irritation than when he arrived for the visit. For this case, it was important that the optometrist use these two communication models to make clinical decisions about the patient's non-improving condition, as well as gain an understanding of the patient's understanding of disease and ability to access treatment recommendations.

Conclusion

These cases highlight various cultural influences and social determinants of health that may impact optometric care. Taking a detailed case history, using interpreters and employing various communication strategies can help elicit cultural beliefs that influence patient behaviors, help clinicians devise individualized management plans for their patients, and ultimately improve patients' healthcare outcomes. Though exploring belief systems and using patient-centered communication is important for improving patient-doctor interactions, systemic racism, sexism, ageism, heterosexism and ableism must also be addressed to improve healthcare outcomes for patients. It is important that optometrists in all modes of practice understand how various sociocultural factors can impact care so potential barriers can be discussed with the patient during the examination. Using various cultural competence tools and being aware of personal implicit biases are important approaches that individual optometrists can take to help reduce population healthcare disparities.

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