Speaker 1:

Welcome to the Eye on the Cure podcast, the podcast about winning the fight against retinal disease from the Foundation Fighting Blindness.

Ben Shaberman:

Welcome everyone to Eye on the Cure. I'm your host, Ben Shaberman with the Foundation Fighting Blindness, and my guest for this episode is Dr. Rachelle Lin, who is an optometrist and an assistant professor at the Southern California College of Optometry at Marshall B. Ketchum University in, of course, southern California. Right off the bat, I want to note that Rachelle is the first optometrist I've had on the podcast as a guest, and this episode is sort of an homage to optometrists and we'll talk more about that in a moment. So welcome to Eye on the Cure Rachelle.

Dr. Rachelle Lin:

Hi. Thanks for having me, Ben.

Ben Shaberman:

Well, it's wonderful to have you and I want to tell our listeners a little more about you. Rachelle teaches low vision, rehabilitation and genetics, and she treats patients in the clinical departments of acquired brain injury and low vision rehabilitation where she also conducts genetic testing for inherited eye conditions. Dr. Lin is also a trustee of the California Optometric Association and an active committee member of the American Optometric Association. And it was about five years ago, I was at a conference with my colleague, Michelle Glaze. It was a conference of low vision professionals and we heard Rachelle speak about inherited retinal diseases. And I was immediately wowed by her knowledge and insights, and we made it a point to go up to her after her talk and introduce ourselves and get to know her. And I have to say that from that point prior, I really didn't understand that well the role an optometrist plays in caring for inherited retinal disease patients, it really is a critical role.

And just to give our listeners some context for this conversation about optometry and the role of optometrists, I wanted to mention that there are nearly, or somewhere in the neighborhood of 50,000 optometrists in the US. Ophthalmologists, quite a few less, 18,000 ophthalmologists. And when it comes to retinal specialists, there are only about 2000. So when you think about where people are getting their eye care, most average people, it's often with optometrists because they're just so much more prevalent in the US. So optometrists are really an important part of the journey for inherited retinal disease patients as well as patients with other eye and retinal conditions. So Rachelle, just to start us off, tell us what you feel your mission is as an eye care professional, someone who sees patients, and as an optometry school instructor.

Dr. Rachelle Lin:

Of course. Well, first, as a faculty member at the Southern California College of Optometry, we have written missions, and one of those missions is to inspire and educate the future doctors of optometry through providing collaborative evidence-based ethical and equitable healthcare. And then additionally, as an eye care professional, my goal is to help patients obtain the devices and resources they need to maintain their independence and reach their goals.

Ben Shaberman:

Got it. Thank you for that. So when you see a patient with an inherited retinal disease or maybe age-related macular degeneration, what is your goal with that visit, especially if it's a new patient that maybe you haven't seen before?

Dr. Rachelle Lin:

Oh yes. Well, with new patients and existing patients within our clinic, it is a little bit different that initial exam. Number one, we want to get a very thorough case history so we understand the patient, where they're coming from, what their vision is and what their history is and what their goals are. Secondly, I want to make sure that the patient has received a diagnosis and importantly understands their diagnosis, including what their prognosis is and the impact on their vision. And it's good that we have that time to sit down with patients and explain to them what's happened to their vision and what they can expect in the future. We also want to make sure the patient is up-to-date on their ocular health management, which includes treatments depending on the patient's disease etiology. For example, if the patient has wet age-related macular degeneration, I want to make sure that that patient is seeing their retinal specialist ophthalmologist to get their anti-VEGF injections, for example.

And then just checking up with the patient if they are aware of current and upcoming clinical trials and treatment options in particular with IRD patients inherited retinal disease patients. I also want to check that they are up-to-date with genetic testing and genetic counseling. If they've had genetic testing a long time in the past and it was inconclusive, we might want to consider retesting. And if the patient had genetic test counseling a long time in the past and has newer questions now, or is starting a family, we can redo a genetic counseling session as well.

We want the patients to know the inheritance pattern of the condition and the possible implications for other family members. And this also helps inform the patient if they may qualify for gene-specific therapy or clinical trials. If the retinal disease is affecting the patient's vision and their ability to do the things that they want to do with their vision, we want to make sure the patients have access to low vision devices and resources, and we want to make sure that the patients very importantly, don't lose hope, don't give up on their goals, don't give up on what they want to achieve within their life.

Everyone after vision loss has to learn how to adapt and sometimes do things differently from the way they're used to. And if we can find a different way for patients to accomplish there their goals and their dreams, be those personal or educational or career dreams, that to us is success within a low vision clinic.

Ben Shaberman:

Right. And what you just talked about sort of underscores the answer to the question that I'm about to give you, but I do want you to elaborate more on this. What is the difference between an optometrist and perhaps an ophthalmologist or a retinal doctor, and how do you work with a retinal specialist or an ophthalmologist to help the patient on their journey?

Dr. Rachelle Lin:

Sure. This is a question we get all the time because the words are very confusing, optometrist versus ophthalmologist. So I'll start with the education. Optometrist and ophthalmologist both need to complete their undergraduate degree, their college undergraduate, four-year degree. And then after that, optometrists enroll in a four-year program that is specifically optometry school, which focuses on all of the body health parts that are affected by vision and vice versa, and then focuses on optics, lenses and then also ocular health, disease, diagnosis and management. Our entire fourth year of optometry school is based on in-person patient-directed care through different rotations. And students may see

patients as early as their first year. Medical doctors go through four years of medical school and after they complete their medical school, which focuses on all parts of the body, then they select a specialty. And for a lot of our ophthalmologists, they obviously selected ophthalmology, and then they might even further specialize into different areas such as anterior segment glaucoma or retina or optic nerve, for example.

Ben Shaberman:

Right. And one thing that I learned in learning about optometrists is often what a great job a low-vision optometrist can do in helping somebody with vision loss get resources and accommodations and so on to help them make the most of their existing vision. Can you talk about how you evaluate a patient who has low vision so you can best accommodate their needs?

Dr. Rachelle Lin:

Yes. Well, going back a little bit, I forgot to mention, optometrists can also specialize in different areas. For example, I did my residency after my four years of optometry school in a, that included low vision rehabilitation. And there are also ophthalmologists who specialize in retinal disease as well as there are ophthalmologists who specialize in low vision. And then the way that we work together is almost all of my patients who have inherited retinal disease also have a retinal specialist ophthalmologist, because if there is a treatment available that requires surgery such as an injection, the ophthalmologists do those surgeries because optometrists do not do that type of surgery. However, when it comes to prescribing devices, that is something that optometrists specialize in.

Ben Shaberman:

Got it. And so what types of tests do you do to evaluate someone's vision so you can best accommodate?

Dr. Rachelle Lin:

So number one, when it comes to a specialized low vision exam, it is always catered to the individual and their specific vision and goals. So if you have perfectly normal vision, 20/20, no ocular disease at all, you might be really used to going to an optometrist's office and doing the one or two tests, getting your glasses and going on your way. And all of those tests are almost the same patient to patient. And what that basic eye exam includes is that refraction, getting your eye prescription, checking the health of the front of your eye as well as the health of the back of your eye, and then checking additional things associated with your eyes such as your eye movements and your ability for your eyes to work together. Then when it comes to low vision rehabilitation, we specialize further. For example, even when we are testing the patient's vision or their visual acuity, we are going to use specialized charts that are catered more towards a patient with low vision, things that have larger letters or larger numbers on them.

And then we also want to do a more thorough assessment of the patient's visual feel and their contrast sensitivity or their ability to see low contrast, our refraction or the process where we determine which lenses are the best in front of the eyes. That's also going to be a little bit more specialized because we do something called a trial frame refraction. Rather than putting the patient behind the normal instrument, the phoropter, which can close off some of that side view and is less natural of a viewing environment, we want to do the refraction within a trial frame that is on the patient's face. And then after we find the best vision that we can get out of that patient with the most perfect glasses, then we want to assess with that residual vision, what can we do with low vision devices that can improve contrast and magnification.

So that would be our magnifiers, telescopes, different color filters, changes in lighting environment, electronic and digital magnification devices, assistive technology, computer software, wearable devices and more. And some of these devices are going to be task specific. So for example, a kid who needs glasses and a telescope that they can use within a lecture hall might need one device when they're within the lecture hall, that they might need a separate device when they're reading texts when they're at home. And then with returning patients, we want to assess how they're doing with their current devices, determine if those devices are meeting the patient's needs and decide if we need updates. Because as we all know, technology's constantly improving and evolving, and we want to make sure that our patients have up-to-date devices.

Ben Shaberman:

Right. And I have to say, people in your region, if they're getting referred to you, they're very lucky because you understand inherited retinal diseases and low vision needs really well. And I presume there are doctors in your area who refer to you and vice versa, you're referring your low vision patients to the right retinal doctors. But in a lot of other areas in the country, those referrals don't happen as readily. I think retinal specialists aren't always up to speed on what low vision optometrists and resources are out there. For people who may not be getting referrals in their communities, do you have any recommendations about how they might find a low vision professional in their community?

Dr. Rachelle Lin:

Yeah, this is a very big issue across the country, and I'm lucky enough to be in a pretty populated area in southern California, but even then there are only a handful of low vision doctors in our greater LA-Orange County area. And I have patients who drive for hours to come to our center, and I can only imagine how much more difficult that is in other parts of the country. And likewise for having those patients find retinal specialists or ophthalmologists who are up to date with IRD research.

A couple resources that might be helpful, the American Optometric Association does have a find a doctor search engine where you can look for an optometrist within the country based off of your zip code, but you can select specifically for low vision rehabilitation. And these are doctors who have updated their profile specifically to say that they are equipped and happy to see patients with low vision. So that's one possible resource. And I feel bad or don't feel bad sending it back to you, Ben, but saying, I know a lot of patients tell me they find out about us just by contacting FFB, getting in contact with the local FFB chapters or even contacting the National FFB Network because you're all very aware of where the doctors are around the country.

Ben Shaberman:

That is true. Thank you for that plug. On our website, we have a list of retina doctors, and that includes a lot of low vision professionals as well. And you're exactly right through our chapter network, we're well-connected to a lot of low vision clinics throughout the country. So those are good suggestions. Thank you Rachelle for that plug. Now, another way that people can deal with low vision is through rehabilitation or orientation and mobility training. Do you refer people to those kinds of professionals and what might they get from a rehab, a low vision rehab person or an O&M instructor?

Dr. Rachelle Lin:

Absolutely. We spend so much of our time referring patients to as many resources as they can possibly get their hands on within their area. Because if you are suffering with vision loss and you need to maintain a job or continue excelling at school, we want you to have everything you could possibly get.

So that includes, for example, our state and every state has their own version of this, but in California we have our department of Rehabilitation through the state. And that program is for anyone who is an adult age, who is either going to school, working, planning to go to school or planning to work. And that agency helps patients get set up with a low vision exam, with a low vision specialist, and helps them obtain the resources that they need to excel in school and work. So that's a huge resource because I know a lot of insurances don't cover these low vision devices.

And if you're able to get that coverage through your state, that's excellent. The other thing is we absolutely refer to our local resources, and at least in California here we have Braille Institute, we have Dale McIntosh Center, we have all sorts of different organizations that do things that help out the patient more so than what we can do within the eye exam office. So for example, there are organizations that help with in-home assessment for low vision lighting and magnification and devices needs. Our Braille Institute nearby does excellent classes for seniors on how to use technology, how to do things around the house, and then they also do orientation and mobility training for patients with white canes and dog guides. And we also have local resources that provide driving rehabilitation, which includes driving assessment and behind the wheel training. So absolutely, we want our patients to get those referrals. Wherever you are in the country, find those resources that are going to be helpful for you.

Ben Shaberman:

Right. That's a great point. And again, through the Foundation's chapter network, you find a local chapter, you can find chapters on our home page of our website toward the top, and if you get in touch with a local chapter, we can try to get you connected to the right resource in your community, be it low vision or rehab or orientation and mobility. But all of those resources are so important. Obviously the foundation is focused on treatments and cures to save vision or restore vision, but in the meantime, while we're doing that difficult work, there's so much patients can do to make the most of their remaining vision and navigate the world much better and do the activities that they enjoy doing. So to finish up, I really appreciate all your insights and thoughts about how you help patients with their vision and do assessments and so on. What inspired you to get into this field, to become an optometrist?

Dr. Rachelle Lin:

Well, I always enjoyed teaching and healthcare. And for a while, I did a little bit of research in a hospital that had a urology department, and I realized, you know what? Urology is great, but it's not the part of the body I'm inspired to care about. And what I wanted was a field of medicine where I got the opportunity to really get to know my patients. And so I started optometry school, and during my fourth year rotations, I happened to have a rotation that was at a low vision site. And at that point, I wasn't planning on specializing in low vision, but I was absolutely inspired by all the amazing patients that were there as well as the amazing staff doctors that worked there. What really struck me was that when you're working in low vision, you get the opportunity to know your patients. And it's actually part of my job to know my patients, to know what their story is, where they've come from, what they're dealing with and what they want to achieve.

And I love having that time together with patients and to work with them to come up with solutions. So it's always exciting, it's always fun, and I love what I do. And if you don't mind a short story, I just met this wonderful lady today. I was doing her phone call to see what she wanted to get out of her low vision exam, and she's 59 years old. And she was telling me that she would love to make it to the base camp of Mount Everest, not all of Mount Everest, but just the first base camp so that she can go and cook

chicken soup for all other climbers there. And I thought, "Wow, what a wonderful goal. We need to get this woman up to Everest." So it's great. Every day, every patient that we see is great.

Ben Shaberman:

Well, that's a great story and I hope you can help this woman get to base camp so she can cook that chicken soup. That's wonderful. Thank you for sharing that. And Rachelle, thank you for taking time today to tell us about your work as a low vision optometrist in Southern California. It was great insights. You're full of great knowledge and skills to help your patients. We appreciate that.

Dr. Rachelle Lin:

Thank you, Ben. Thanks for having me.

Ben Shaberman:

You are welcome. And listeners, thanks as always for joining Eye on the Cure. It's great to have you, and we look forward to having you back for our next episode. See you later.

Speaker 1:

This has been Eye On the Cure. To help us win the fight, please donate at foundationfightingblindness.org.