Sleep Care Gets Personal with Precision Medicine

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Dr. Rachel Marie E. Salas has been an active member with the AASM since 2005. She is an associate professor in neurology at Johns Hopkins Medicine with a joint appointment in the School of Nursing, as well as the assistant medical director for the Johns Hopkins Center for Sleep. Additionally, Dr. Salas is the director of the Neurology Core Clerkship and the director for interprofessional education and collaborative practice for the Johns Hopkins School of Medicine. She is also a Gallup CliftonStrengths Coach and uses this training in her clinical practice. Recently, Dr. Salas spoke about precision medicine at Sleep Medicine Disruptors, a new course that the AASM livestreamed in March.

Precision medicine allows us to identify the biological characteristics of an individual, or specimen from an individual, so that we can tailor and deliver therapeutics and diagnostics for our patients. There are different tools that we can use to provide precision medicine, and they come in the form of “-omics.” Most people have heard of genomics, pharmacogenomics, and metabolomics, and there's several others out there with more to come.
For the last several decades there's been an emphasis on evidence-based medicine. For example, you might have six patients, all with diagnosis X, and based on such and such study, you're going to treat them with treatment A, right? Precision medicine is not in competition with evidence-based medicine. We really use the two together. We still use the studies, but now we're getting information, biological information, to better tailor, in this case, the treatment.

Precision medicine allows these fancy tools, more technology, and more information to provide better personalized medicine. The end goal is high-value care, to do things more effectively for our patients.

At the Johns Hopkins Center for Sleep, we are committed to “personomics,” a term coined by Dr. Roy Ziegelstein, a cardiologist and vice dean of education at Johns Hopkins. Personomics involves finding out what our patients’ goals are, what they are concerned about, what past experiences they have had, what their financial support is, and what their networks are; these are the things that are important for engaging the patient in care. Personomics is not new; it's been happening for many centuries, but the landscape has changed. Previously, physicians would go to the patients’ homes. They got a sense of what was happening at home, who were the family members, what was the financial status. In fact, a lot of physicians were in the same communities with their patients, maybe even the same church, or they had kids at the same school. So, they really had a more holistic view of the patients.

For us, we are dealing with electronic medical records. Studies show that we spend more time documenting than we do with our patients, so we don't have time to really ask those open-ended questions that we all learned about in the first year of medical school. However, that information is more important now, in this era of precision medicine. We are doing things in our center to reconnect with our patients and really get to know the person in front of us. It is quite refreshing to have that connection with our patients.

At our sleep center, we have also strived to expand the sleep center team, connecting with non-sleep private practice clinicians, working with biomedical and computational medicine engineers to develop novel and innovative methods to study sleep, forming partnerships with well-being coaches, and committing to developing sleep education tools for the public, patients, students, trainees, and health care professionals. We are working toward becoming a true precision sleep medicine center at our institution. In the last year, we have rolled out telehealth and pharmacogenomics, and we expanded our home ambulatory armamentarium, allowing us to provide a more personalized approach in an effort to provide high-value care.
I believe that we (as sleep specialists) should embrace precision medicine in our field, but I also believe that the field of sleep medicine is primed to be an important tool (i.e., -omic) in the domain of precision medicine. This is what I'm calling “somnomics.” More to come on that soon.

References


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