KESSLER FOUNDATION Podcast Transcript

Neuroimaging study reveals fatigue-related differences by age and gender-Ep45

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JOAN BANKS-SMITH 00:09	[music] Even though maybe we think that people who are older experience more fatigue, they don't seem to experience more fatigue in the moment when they're actually doing the task.
GLENN WYLIE 00:21	That was Dr. Glenn Wiley, and I'm your host, Joan Bank Smith, creative producer here at the foundation. In this episode, Dr. Glenn Wiley, director of Rocco Ortenzio Neuroimaging Center, talks about his peer-reviewed article, Fatigue Across the Lifespan in Men and Women State versus Trait, published on May 9, 2022, in the journal Frontiers and Human Neuroscience. This work was supported by the National MS Society, the New Jersey Commission for Brain Injury Research, the Department of Veterans Affairs, and Kessler Foundation. Dr. Wiley, can you share with us the main takeaways of this study?
BANKS-SMITH 01:04	So there are a few takeaways, and to order to understand them, it's important to distinguish two types of fatigue. There's what we call trait fatigue, which is fatigue, where you say, how much fatigue have you experienced over the past four weeks? And that's a measure of long-standing fatigue. And then there's what we call state fatigue, which is the fatigue you experience in the moment. So if you're doing a task, I stop and I ask you, how fatigued are you right now? That's state fatigue. We assess both types of fatigue in the study, and we assess them in men and women, in subjects who had a variety of ages from 25 to 65, and we looked at whether their experience of these two types of fatigue changed over time, over age, as well as gender. And what we found was that for trait measures of fatigue, so fatigue over a long period of time, there was no difference for either measure. Men and women didn't differ, and people 25 to 65 all experienced the same amount of fatigue. But then when we actually put people in the MRI scanner, and we induced fatigue by having them do a task and then ask them at intervals how fatigued they were as they went along, this is the state fatigue measure. We found, sort of to our surprise, that individuals who were older reported less fatigue than their younger counterparts, and also that men and women differed in the fatigue that they experienced, where women seem to actually show more resilience and to report a little less fatigue than their male counterparts. So those are the main takeaways.
WYLIE 02:49	What is the impact and next implications of this publication to the field?
BANK-SMITH 02:54	We want to go forward and see whether this trend of less fatigue as people get older continues into older age. So people who are above 65 years of age, that's one sort of future direction. And the implication there would be that even though maybe we think that people who are older experience more fatigue, they don't seem to experience more fatigue in the moment when they're actually doing the task. And so that's a counterintuitive result. And so we want to understand that better. And then we also want to understand better the areas of the brain that were sensitive to these changes over time. And so middle frontal gyrus was an important area in this study, and we want to understand how its function changes over age as well as gender.

WYLIE 03:57

[music] To learn more about Dr. Wiley, his peer-reviewed article, and the Rocco Ortenzio Imaging Center, links are in the program notes. Tuned into our podcast series lately? Join our listeners in 90 countries who enjoy learning about the work of Kessler Foundation. Be sure and subscribe to our SoundCloud channel, Kessler Foundation, for more research updates. Follow us on Facebook, Twitter, and Instagram. Listen to us on Apple Podcasts, Spotify, SoundCloud, or wherever you get your podcasts. This podcast was recorded on July 11, 2022, and was edited and produced by Joan Banks-Smith, creating producer for Kessler Foundation.