

Dr. Nancy Chiaravalloti applies modified story memory tech to healthy aging and persons with early dementia - Ep22

*** Recorded on April 21, 2021. *** [Listen to it here.](#)

JOAN BANKS-SMITH: 00:07 [music] This is Joan Banks-Smith for Kessler Foundation's Fast Takes: Research that Changes Lives. Today, I spoke with Dr. Nancy Chiaravalloti, Director of the Center for Neuropsychology and Neuroscience Research and the Center for Traumatic Brain Injury Research. We talked about her pilot study, "Applying the Modified Story Memory Technique to Healthy Aging in Persons with Early Dementia. Welcome to the show, Dr. Chiaravalloti.

NANCY CHIARAVALLOTI: 00:35 Thank you for having me.

BANKS-SMITH: 00:36 This study is not a typical area of rehabilitation research we study here at Kessler Foundation. Can you tell us about it?

CHIARAVALLOTI: 00:44 We have been doing work on the Modified Story Memory Technique at Kessler Foundation for years now. And the work that we were doing was with traditional rehabilitation populations, namely multiple sclerosis and traumatic brain injury. The results that we were finding were very encouraging and highly supportive of the use of the Modified Story Memory Technique in these populations. We were demonstrating that patients were seeing an improvement in their memory functioning when we tested it with objective measures. They were reporting changes in their daily life or improvements in their daily life after treatment, and we were also seeing changes at the level of the brain on MRI. So because these results were so encouraging, we wanted to expand the use of the Story Memory Technique to other populations that might be struggling with learning and memory impairments. And the most obvious population out there are individuals that are aging healthy as well as individuals who have dementia. We therefore decided to conduct a pilot study where we apply the modified story memory technique to individuals who were aging healthy as well as individuals who were meeting criteria for dementia.

BANKS-SMITH: 02:04 What were your typical findings overall?

CHIARAVALLOTI: 02:07 In the aging and dementia population, we found that the Story Memory Technique did indeed improve learning and memory. We do have imaging data, although we have not looked at that yet. That is our next step of analyses. But we have looked at the objective neuropsychological data. What we found there was a very nice improvement in an individual's ability to remember new information after treatment. We also looked at everyday life data, and we found that individuals were reporting improvements in their everyday life after treatment. And this was with specifically the aging and dementia population. So the results were very encouraging.

BANKS-SMITH: 02:46 Do you think that those that have benefited from this will need to have a booster every six months, every year?

CHIARAVALLOTI: 02:53 That we don't know yet. We are currently collecting long term follow up data. So the way the study was designed, the patient or the person entered the study and they completed a baseline evaluation. And then they completed treatment for 10 sessions

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spread over five weeks, and then we did a follow up evaluation, and that's the data we've looked at to date. We are continuing to collect data to see how people are performing six months post treatment, as well as one year post treatment and two years post treatment. But obviously it takes the passage of time to collect that data. So while we continue to collect that data, it's just going to take time by virtue of the fact that we have to wait for time to pass. So we will know the answer to that soon. I do anticipate that patients will benefit from what we call booster sessions. The booster sessions have been shown in other populations to expand the treatment effect over a period of time. So if someone completes intensive treatment for a period of five weeks, what they could do is come back for booster sessions once a month or once every two months. And in those sessions, we reinforce the skills that they learned during treatment, in an effort to keep them fresh and to encourage people to continue using those skills over time. So I do anticipate that the booster sessions would be helpful, but I don't have data to demonstrate that yet.

BANKS-SMITH: 04:25

Well, that's very encouraging for people that are healthy aging or have dementia.

CHIARAVALLOTI: 04:30

Yes, it is.

BANKS-SMITH: 04:31

Dr. Chiaravalloti, what are your next steps and where do we go from here?

CHIARAVALLOTI: 04:35

We are continuing to follow the cohort that was already trained for a period of two years. But in addition to that, the sample we collected to date is a small sample. It's only about 25 participants, but we need larger samples. So we're in the process of applying to NIH for a larger grant. And that grant will test upwards of 100 individuals with the Story Memory Technique to be able to document effectiveness within that population with a much larger sample. And that's what's really needed to demonstrate definite clinical efficacy. So that study will take a little while to complete, but it will definitely provide the results that we need to get the protocol out into the [inaudible] world.

BANKS-SMITH: 05:21

Funding source for this study was the Dean Janeway Fund at the New Jersey Health Foundation. To learn more about Dr. Chiaravalloti, the Center for Neuropsychology in Neuroscience, and the Center for Traumatic Brain Injury Research, links can be found in the program notes. Tuned in to our podcast series lately? Join our listeners in 90 countries who enjoy learning about the work of Kessler Foundation. Follow us on Facebook, Twitter, and Instagram. Listen to us on Apple Podcast, Spotify, SoundCloud or wherever you get your podcasts. This podcast was recorded on Wednesday, April 21st, 2021, remotely, and was edited and produced by Joan Banks-Smith, creative producer for Kessler Foundation. [music]