

Staying social



Some people with MS may have difficulty interpreting what others are feeling.

by Lori De Milto

After Meg Balter was diagnosed with multiple sclerosis at age 21, she began experiencing cognitive changes that made it harder for her to think, focus and remember things. What she didn't realize was that she also had changes in her social cognition: how people process and apply information about other people and social situations.

Also called reading social cues, social cognition includes interpreting facial expressions, understanding how other people are feeling and being able to show empathy. People who have problems reading social cues may not recognize, for example, that someone with downturned lips is sad, or that a furrowed brow means confusion or annoyance. Without being able to read social cues, people can't react appropriately.

"Only in the past few years have we become aware of these problems with social cognition in MS," says Helen Genova, PhD, assistant director of neuropsychology and neuroscience at the Kessler Foundation in West Orange, New Jersey. "If you're not aware of it, it's very hard to treat it."

"I wasn't aware that I wasn't 'getting it' until I participated in a study at the Kessler Foundation," says Balter, who lives in Roseland, New Jersey. The study took place more than 30 years after Balter had been diagnosed with MS.

Social cognition study

Participants

- 120 participants
 - 60 people with MS
 - 60 people of the same age and education level who didn't have MS
- Type of MS
 - Relapsing-remitting MS: 50 people
 - Secondary progressive MS: 10 people
 - Average time since diagnosis: 11 years

Tests

- Measuring how well participants could read other people's beliefs, desires and intentions (Theory of Mind tests) after looking at photos and videos
- MRI brain scans

Genova and Jean Lengsfelder, PhD, conducted the pilot study, in which Balter and other participants looked at photographs of faces while having a functional MRI—a type of brain scan that can measure areas of brain activity by monitoring blood flow. They had to decide what emotions the faces were showing, such as happy, sad or angry. The participants also received training in how to recognize emotions. The researchers used the brain scans to see how participants were processing different emotions to compare them to people without MS.

Subtle changes in the brain

In one recent study, researchers in Portugal found that people with MS had more problems with social cognition than people who did not have MS, and these problems were linked to subtle changes in the brain. The researchers, led by Sonia Batista, MD, of the University of Coimbra, published study findings in the journal *Neurology* in May 2017.

Researchers found that people with MS had much lower scores on "Theory of Mind" tests than those without MS. The tests measured how well participants read other people's beliefs, desires and intentions after looking at photos and videos. The results suggested that people with MS had lower than average scores interpreting photos and videos than people who did not have MS, though no participants had perfect scores.

The results:

- Photo test average score:
 - 59 percent for people with MS
 - 82 percent for healthy participants
- Video test average score:
 - 75 percent for people with MS

- 88 percent for healthy participants.

This confirmed findings in earlier studies. The scores for people with MS were not related to their level of physical disability or how long they had been living with MS. But lower scores were related to the loss of myelin in the brain's "social network," the areas of the brain experts think are associated with social cognition. Problems reading social cues may be linked to other cognitive problems such as processing speed, says Genova, who also conducts research on cognitive function in MS. "A lot of times people with MS understand other people's emotions, but it takes them much longer to understand and process the social cues and come to the correct response," she says.

Why social cues are important

Social cues guide our interactions and relationships with family, friends, colleagues and strangers. "The ability to interpret other people's feelings and intentions is very important for people with MS, since having good support is one of the main factors in whether people have a good quality of life," Dr. Batista said.



Deanna Lagrand Yeakle finds that her ceramics class provides the perfect balance of social and individual activity. Her family has been supportive of her hobby. She's wearing an apron her sister made for her and using tools her son gave her. Photo courtesy of Deanna Lagrand Yeakle

People with MS who have problems reading social cues sometimes limit or even stop their social activities. For example, Deanna Lagrand Yeakle enjoys going to her local art center to do ceramics, but she tends to avoid parties and crowds, where she's afraid she might say the wrong thing. "There is always someone to talk to at the art center. It's light chatter, so I don't feel lost in a sea of words, nor do I feel the challenge to prove myself intellectually," says the 55-year-old Salem, Oregon, resident, who was diagnosed with MS at age 35.

Balter also worries about what she might say and finds being in a crowd difficult. "Over the years, I stopped initiating conversations. I would listen and maybe comment," she says.

Are you missing cues?

Like Balter, other people with MS might not know that they have problems reading social cues.

If you're having problems in relationships with friends or family members, such as fighting more often or hearing from them less often, you might be missing their social cues. You can also explain the problem to family members and friends and ask them to tell you if you're not recognizing their feelings.

Strengthen skills with practice

While not being able to read social cues is frustrating and embarrassing, avoiding other people isn't the answer. "This problem is likely to get worse if you stop interacting with people. It's a use it or lose it type of thing," Genova says. Practicing your social skills helps you strengthen them.

A few good friends, a supportive family and humor help Lagrand Yeakle cope with her cognitive problems. "You don't need 100 friends. You need a couple of good friends and some acquaintances," she says. "Be willing to laugh at yourself. Your good friends will laugh with you."

Ways to make socializing easier

1. Bring a friend or family member to support you.
2. Spend time with people one-on-one or in small groups.
3. Take exercise classes for people with MS.
4. Join an MS support group.

Balter is a member of the Public Discipleship and Social Justice Committee at St. Thomas Moore Church. She enjoys researching projects and interacting with other committee members and uses what she learned in the Kessler Foundation study to help her read people's emotions and respond appropriately. "The study taught me how to listen and to look," she says.

Be social, even if it's difficult for you. "It's never a good idea to just stay home," Genova says. "That leads to increased social isolation and the feeling that you can't handle this." Lagrand Yeakle agrees. "Even if the only thing I do is walk my dog and chat with neighbors along the way, I have to get out," she says. Genova suggests asking family and friends to tell you how they are feeling, instead of expecting you to recognize their emotions, and interacting with other people with MS.

More research on social cues

Dr. Batista and Genova both say that more research on social cognition in MS is needed. "We don't know how many people have these deficits, and we don't know why people have them," Genova says. With funding from the National Multiple Sclerosis Society, Genova is working on a pilot study using functional MRI to examine changes in the brains of people with MS after they have completed a program to help them process emotions. The study will be completed in 2019.

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