

Multiple Sclerosis Research Update

News from the Center for Neuropsychology & Neuroscience Research at Kessler Foundation

In This Issue – Social Participation

The first issue of the *Multiple Sclerosis Research Update* newsletter focuses on social participation, particularly its role on health and well-being.

In recent decades, close social relationships have been considered protective or promoting factors of health. In fact, a large study in 2010 found that impoverished social connections can be more detrimental to individuals' health than other factors such as cardiovascular risk, smoking, alcohol use, and obesity.

The importance of social activity, health, and well-being is even more meaningful in light of the COVID-19 pandemic and the

social restrictions placed on many individuals. We'll discuss findings from Kessler Foundation researchers who identified the role of social activity on health and well-being in multiple sclerosis (MS) and the negative impact of the COVID-19 pandemic on individuals' depression, anxiety, and loneliness.

Also highlighted in this issue is a free, 10-item personality assessment tool to assist practitioners in identifying patients who may be at risk for "Type D" or "Distressing Personality." The presence of Type D characteristics is also known to be a significant predictor of health and well-being, as found by our researchers. Finally, in our "Clinician's Corner"



we speak to the importance of staying socially active and provide resources to assist patients in connecting with others living with MS. 🧠

Meet the Researcher



Lauren Strober, PhD, is a senior research scientist in the Center for Neuropsychology & Neuroscience

Research and director of the Positive Health and Well-being Laboratory at Kessler Foundation. Her research focuses on identifying disease- and person-specific factors that influence health and well-being among individuals with neurological or medical conditions, particularly MS. The forefront of her research is about improving the care for individuals with MS and assuring that they can live the fullest lives possible. Dr. Strober

has authored over 45 publications in peer-reviewed journals and has received more than \$2 million in grant funding as a principal investigator in this area of MS. Dr. Strober completed her doctoral work in clinical psychology at Pennsylvania State University and further completed a postdoctoral fellowship at the Cleveland Clinic in Clinical Neuropsychology. 🧠



The Center for Neuropsychology and Neuroscience Research has been conducting Multiple Sclerosis (MS) research for over 20 years. Impairments in higher level cognitive processing, such as learning and memory, are common symptoms of MS, and negatively impact aspects of everyday life. Scan the QR code or go to <https://KesslerFoundation.org/research/multiple-sclerosis-research> to learn more about our research.


Research Highlights

Keep your friends & family close and poor health far, far away

Given the known role of social activity, Kessler Foundation researchers sought to examine the function of social integration and support on health and psychological well-being among individuals with multiple sclerosis (MS). Findings revealed that while cardiovascular risk factors and having a progressive MS course were the most significant factors associated with poorer perceived physical health, social integration was the next important factor and had a greater role than diet and exercise.

Personality traits, such as high neuroticism and social discomfort/low extraversion, were the greatest determinants concerning psychological well-being. However, social integration was the second most predictive factor for the majority of psychological well-being domains. When examining these factors over time, social integration and support remained predictive of individuals' health and well-being two and a half years later.

The principal investigator, Dr. Lauren Strober, senior research scientist in the Center for Neuropsychology and Neuroscience Research, stated, "These findings are important in improving the lives and health of individuals with MS since approximately 50% to 70% of individuals with MS report experiencing loneliness or social isolation.

"Efforts to enhance individuals' social connectedness should be considered an important health intervention and is, in fact, 'prescribed' by physicians in the United Kingdom. MS clinicians should inquire about individuals' social activity, particularly in light of the COVID-19 pandemic, and urge patients to be socially active and find meaningful, social outlets." 



To learn more about this research and read the study in its entirety, visit: <https://doi.org/10.1111/hsc.13800>

Latest data shows depression, anxiety, and loneliness were exacerbated by the global pandemic

The COVID-19 pandemic has had a substantial impact on all of us. But people with MS have been even more affected, showing increases in mental health concerns and loneliness. Individuals with MS are already at an increased risk for depression, anxiety, and social isolation/loneliness, which data show were intensified by the pandemic.

To deduce how the COVID-19 pandemic affected people with MS, researchers at Kessler Foundation compared survey data from the same participants at three different points in time: more than two years ago, prior to the pandemic, and during the pandemic. The focus of this study was to examine the financial, social, and emotional impact of the pandemic on participants' depression and anxiety.

A research team asked individuals to retrospectively report their depression and anxiety immediately prior to the pandemic and presently. These findings were then compared to surveys from the same individuals who had previously participated in a research study on employment factors (mean elapsed time ~2.39 years).

The data revealed significant increases in depression and anxiety over time. Specifically, rates of depression increased from 13% and 18% (immediately prior and previously, respectively) to 29% currently. Rates of anxiety also increased from 28% and 31% (immediately prior and previously, respectively) to 47% currently (See Figure 1).

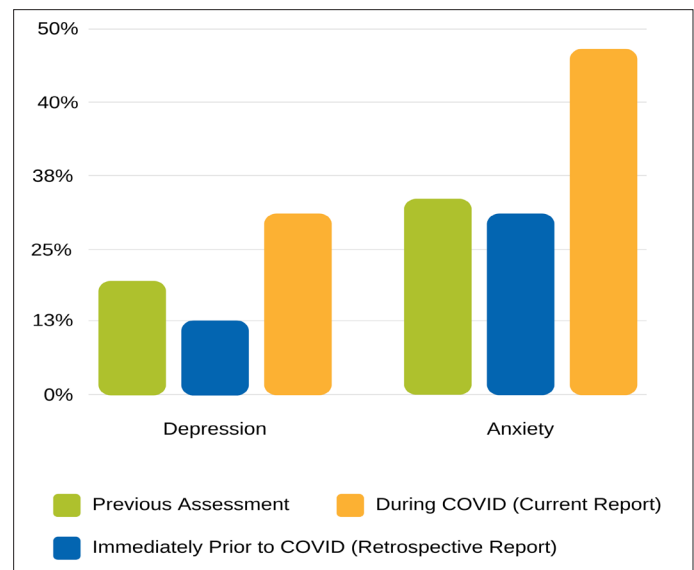


Figure 1

More striking is that compared to their previous reports of depression and anxiety, respondents reported "new" depression (approximately 54%) or anxiety (approximately 33%), which could be attributed to the pandemic.

It was also found that while 63% retrospectively reported being lonely prior to the pandemic, 76% reported being lonely during the pandemic. Reports of emotional loneliness specifically suggested an increase for individuals with "new" depression and

Research Highlights, cont.

anxiety. Meanwhile, consistently higher numbers were reported among those with pre-existing depression and anxiety.

Such findings suggest that while emotional loneliness may be a consequence or antecedent of longstanding depression and anxiety, it is also an artifact of the pandemic among those with “new” depression or anxiety (See Figure 2).



To learn more about this research and read the study in its entirety, visit: <https://doi.org/10.1016/j.msard.2022.103497>

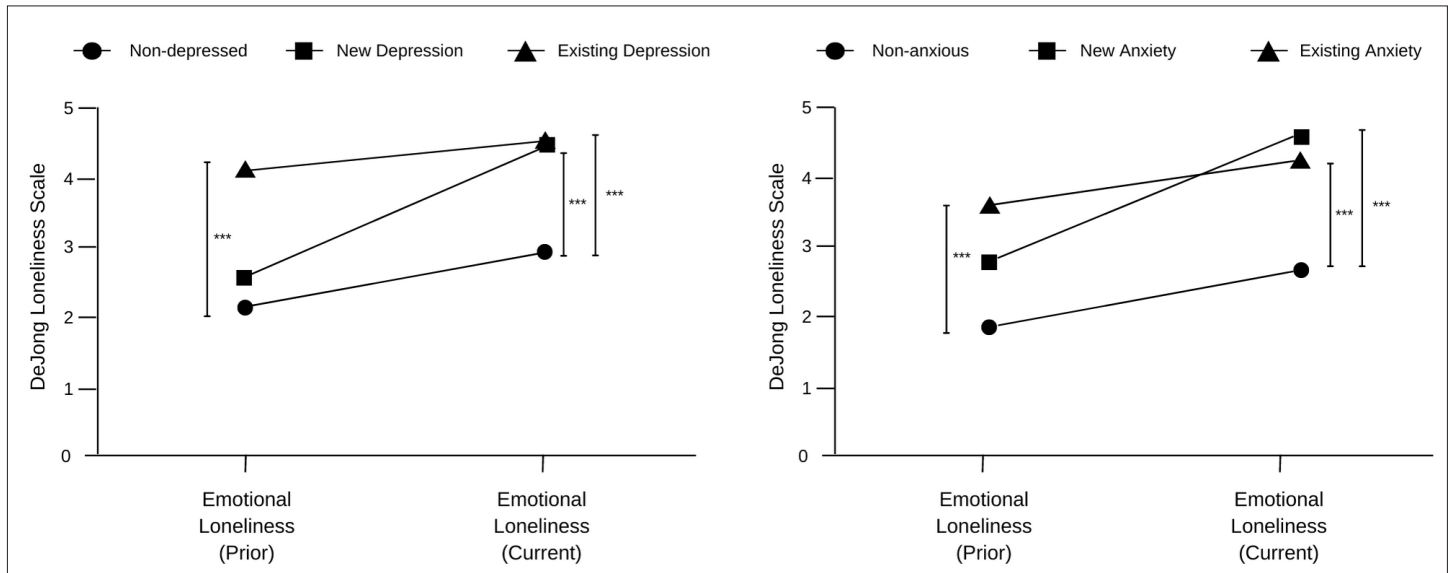


Figure 2

Clinician's Corner

Share these tips with patients on how to combat social isolation or loneliness

As practitioners, we often ask our patients many questions. Yet, how often do we inquire about their social networks, who they spend their time with, how often they visit with family or friends, or their engagement in the community?

It is important to understand that even individuals with a good support network may feel lonely when contending with their multiple sclerosis (MS). It is common for individuals with MS to feel that others do not understand them or their experiences. Additionally, individuals may retreat further if their explanations of the impact of MS are not well received or successful.

It is certainly warranted to have a dialogue regarding patients' social activities, given the importance of social support and connectedness to health and well-being, particularly during the COVID-19 pandemic. Here is some guidance you might provide to help your patients avoid feelings of loneliness or social isolation.

Connecting individuals with others who have MS is a good first step in helping them feel understood and connected. By relating to others with MS, a great weight may be lifted as individuals feel an unspoken understanding that makes their interactions easier and more enjoyable. In an attempt to maintain and foster these relationships, individuals can also share how they have educated their families, friends, and coworkers about MS and what has or has not worked.

The National Multiple Sclerosis Society offers many resources where individuals with MS can talk with their peers and share their experiences. These include:

- MSFriends®: One-on-One Connections - <https://www.nationalmssociety.org/Resources-Support/Find-Support/Connect-with-Peers-One-on-One>
- Join a Local Support Group - <https://www.nationalmssociety.org/Resources-Support/Find-Support/Join-a-Local-Support-Group>
- Online MS Communities- <https://www.nationalmssociety.org/Resources-Support/Find-Support/Online-Communities>



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Clinical Tool Spotlight

Personality traits, specifically high neuroticism and social discomfort/low extraversion, are predictive of psychological well-being among individuals with MS. This synergistic combination of personality traits has been termed “Type D” or “Distressing Personality.” These traits were initially studied among cardiac patients and found to be a significant predictor of poor health and recovery.

Most recently, these personality traits have also been investigated in other medical conditions, including MS. Kessler Foundation researchers have found that individuals with MS who endorse such personality traits report greater levels of fatigue, pain, depression, and anxiety plus poorer disease management and adherence. They are also more likely to engage in maladaptive means of coping.

Given these factors, assessment of personality may greatly assist practitioners in identifying patients who may be at risk for such outcomes. However, most measures of personality are lengthy and time consuming, rendering them unsuitable in routine clinical practice. Fortunately, a quick, 10-item measure of personality, the Ten Item Personality Inventory (TIPI), exists and is free for use. Scoring and normative data are also provided. Including this brief assessment in everyday practice may greatly improve the overall care and treatment of patients.

Gosling, S. D., Rentfrow, P. J., & Swann, W. B., Jr. (2003). A Very Brief Measure of the Big Five Personality Domains. *Journal of Research in Personality*, 37, 504-528.

<https://gosling.psy.utexas.edu/scales-weve-developed/ten-item-personality-measure-tipi/> 

Now Recruiting

Do you have a patient who is interested in participating in research? Researchers at Kessler Foundation are actively recruiting for the following studies:

- **Memory Rehabilitation in Multiple Sclerosis.** Please refer any individuals between the ages of 18-69. The first step is a telephone screening by one of our data collectors, which takes approximately 30 minutes.
- **Reinventing Yourself with Multiple Sclerosis.** This study consists of a 6-week virtual, group intervention that employs cognitive behavioral and positive psychology principles to improve self-efficacy and assist individuals in living well with MS. Please refer any individuals with a definitive diagnosis of MS and no other neurological conditions. Individuals should not be involved with any concurrent formal clinical group, psychotherapy, or experiencing any significant depression.
- **Supervised Exercise and Cognition in Multiple Sclerosis.** This study consists of a 12-week exercise intervention (3 days/week). Eligible individuals should be between the ages of 18-65, right-handed, able to walk without an assistive device (EDSS 0 - 4.0), have no significant psychiatric disorder, on stable disease-modifying therapy for at least six months, relapse-free for 30 days, demonstrate some impairment in processing speed, and have low contraindications for exercise and MRI.

Ask potential participants to contact Nancy Moore at nbmoore@kesslerfoundation.org for more information. 