

Anxiety levels may affect thinking abilities in MS

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The physical effects of MS, for example on walking, are the ones that the broader community are most aware of as being a part of MS. But it is the invisible symptoms of MS, such as fatigue, thinking and memory problems, that can often have the biggest impact for many people with MS.

Around 65% of people with MS are known to have difficulties with thinking and memory, or cognition, which can significantly affect quality of life, employment and day-to-day activities. Cognitive abilities refer to our ability to form a memory, our attention span, and our language skills, amongst others. The reduction in cognitive abilities that

some people with MS experience is thought to be due to MS affecting the areas of the brain that control these skills.

Thinking and memory can also be closely linked to mental health in some people with MS and in particular, cognitive abilities have been linked to depression in MS. However, the good news, when the patients' depression was treated, their cognitive abilities also improved. Unfortunately, people with MS are more likely than the general population to suffer from other mental health issues, including anxiety and stress, but the link between anxiety, stress, and cognitive abilities in people with MS still requires investigation.

Dr Karen Ribbons, Associate Professor Jeannette Lechner-Scott and their colleagues have recently conducted studies at the John Hunter Hospital in Newcastle, NSW, to investigate if anxiety, stress and depression were linked to lower cognitive abilities in a group of MS patients.

In [a study](#) published in *The Journal of Neuropsychiatry and Clinical Neurosciences* in late 2016, they present the findings from a group of people with MS who attended the John Hunter Hospital MS clinic between 2008 and 2014. The participants were asked to complete questionnaires to determine if they suffered from depression, anxiety and/or stress. They also completed a panel of tests to measure different aspects of their cognitive abilities. The researchers then compared their cognitive abilities with their mental health. They found that the people with MS that suffered from depression, anxiety and stress were more likely to have reduced cognitive abilities than people with MS that did not have mental health problems. Their main finding was that the people with MS that suffered from anxiety often also had impaired cognitive abilities, especially in the area of memory. This is the first time that this connection between anxiety and cognitive ability has been identified in people with MS. Interestingly, this association occurred in patients from all ages, and regardless of disease progression.

Further studies are required to determine if this association is seen in a larger group of people with MS, from a broad range of locations and whether treating anxiety could have the added benefit of improving cognitive function. If this is the case it could have wide-reaching implications for the management of cognitive symptoms for people with MS, with broad benefits across daily-life and employment.