

Study shows emotional contagion increases in Alzheimer's patients

May 28 2013, by Bob Yirka

(Medical Xpress)—A team of researchers working at the University of California's Memory and Aging Center has found that emotional contagion appears to increase in a linear progression with patients who have Alzheimer's disease (AD). In their paper published in the journal *Proceedings of the National Academy of Sciences*, the team says their findings indicate that emotional contagion grows stronger in patients with both the precursor Mild Cognitive Impairment (MCI) and full-blown AD.

[Emotional contagion](#) is where one person mimics the emotions of another. The phenomenon is very common in human infants—upon seeing someone else smile, they tend to smile too. Babies have also been found to cry upon hearing other babies cry. The tendency to mimic others' emotions regresses as people age, but this new study suggests it makes a reappearance in people who experience some forms of cognitive impairment later on in life.

Prior research has shown that AD causes damage to [parts of the brain](#) that are responsible for emotion—thus not all emotional problems with AD patients can be attributed to a natural human response to mental adversity. Both MCI and AD patients have been found to experience higher rates of depression and anxiety. Until now however, little research has been done to find out if people revert to mimicking the emotions of others as a type of response mechanism.

To learn more, the researchers performed psychological surveys on 120

people diagnosed with AD or MCI. Their inquiries focused mostly on emotional empathy. The team also enlisted the assistance of 111 healthy volunteers to serve as a control group. All of the participants also underwent MRI exams to test for levels of [disease progression](#).

The brain scans revealed damage to the medial temporal lobe—known to be associated with [emotional control](#)—in those with dementia and also in the [hippocampus](#), the part of the brain responsible for memory and recall.

An analysis of the results of the surveys and brain scans showed that emotional contagion became apparent in patients with MCI and grew more pronounced at each stage of the progression of AD. They also found that there appeared to be more of a connection between the degree of emotional contagion and damage to the right side of the medial temporal lobe, as compared to the left.

The researchers suggest that patients with dementia may mimic the emotions of others as their ability to gauge their own emotional state deteriorates. Doing so, they suggest, may help patients cope with their ailment. They add they it may also help patients hide their condition from others.

More information: "Heightened emotional contagion in mild cognitive impairment and Alzheimer's disease is associated with temporal lobe degeneration," by Virginia E. Sturm. *PNAS*. To be available at www.pnas.org/cgi/doi/10.1073/pnas.1301119110

© 2013 Medical Xpress

Citation: Study shows emotional contagion increases in Alzheimer's patients (2013, May 28) retrieved 27 April 2024 from

<https://medicalxpress.com/news/2013-05-emotional-contagion-alzheimer-patients.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.