

Psychologists stress the importance of memory in preventing relapse after therapy

November 3 2011

(Medical Xpress) -- Addictions, phobias, post-traumatic stress disorder—such painful and harmful problems are recalcitrant to treatment. In the clinic, a person may suppress the association between the stimulus and the response—say, a bar with ashtrays and smoking—by learning to pair the stimulus with a new memory not involving smoking. But once out in the world, faced with bars and ashtrays aplenty, he relapses into the old behavior. Some treatment aims at helping the patient avoid locations and stimuli that trigger the harmful behavior.

A new article in *Current Directions in Psychological Science*, a journal published by the Association for Psychological Science, says this is not the most effective route. “The therapist really has little control over the context in which the patient finds himself,” says Ralph R. Miller, distinguished professor of psychology at the State University of New York at Binghamton, who wrote the article with SUNY colleague Mario A. Laborda. A more promising method, then, is: “Make the treatment memory stronger.”

Experimentalists like the authors use the term “extinction” for the process, as Miller puts it, of “teaching the subject new memories that oppose the old memories.” Clinicians call it “exposure therapy.”

The article reviews the psychological literature supporting four ways to make the extinction memory stronger and therefore more enduring: Give more therapy (or in the experimental context, more trials). Conduct the

therapy in different locations and contexts—for instance, different rooms rather than always the same office. Space the extinction exercises—or in the lab, the experimental trials—over the therapeutic session. And finally, provide the treatment sessions separated by more time. These methods exploit established principles of learning: that increased practice enhances learning, and “spaced practice results in better memory than when the learning trials are massed,” says Miller.

Miller stresses the importance of animal laboratory research in finding new treatment methods. “We are developing excellent means in the animal lab to model human psychopathology, not just for screening drugs but for screening behavioral treatments. We additionally now have models of the treatment and the limitations of the treatments,” he says. Determining how to reduce those limitations using rats rather than humans is faster and requires fewer subjects, he says. Numerous clinical studies, moreover, “certify that our findings with rats also apply to humans.”

The research cited in Miller and Laborda’s paper is suggestive of a powerful theory: “It appears that memories are forever,” says Miller. It then ratifies those proven facts about learning. “We are providing alternate memories that compete with the deleterious memory”—say, a new, automatic mental image of having a drink and a conversation in a bar without picking up a cigarette, perhaps accompanied by a feeling of relaxation. “The trick is that the newer memory when it is retrieved will be stronger than the deleterious [memory](#).”

Provided by Association for Psychological Science

Citation: Psychologists stress the importance of memory in preventing relapse after therapy (2011, November 3) retrieved 11 June 2026 from <https://medicalxpress.com/news/2011-11-psychologists-stress-importance-memory-relapse.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.