Dreaming During Sleep Soothes Painful Memories

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It's true! Things really may look better in the morning! When we're in the rapid eye movement (REM) dream phase of slumber, this takes the edge off difficulties we've experienced, according to a study by researchers at the University of California, Berkeley and reported by EurekAlert.

For the study, researchers split 35 healthy young adults into two groups. Both were shown a series of 150 emotional images while their brain activity was measured with an MRI (magnetic resonance imaging) scanner. Twelve hours later, scientists showed the groups the images again, this time at different times of the day.

The first group viewed the images in the morning and again in the evening, without sleeping in between, while the second group first viewed the images in the evening, and then slept before viewing them again in the morning.

Researchers noted that participants who slept between viewings reported a significantly lesser emotional reaction to the images. What's more, their MRI scans showed greatly reduced activity in the amygdala—the part of the brain responsible for processing emotional activity.

Scientists also studied the second group's brain activity while sleeping. Participants in this group showed a reduction in certain electrical patterns. According to researchers, this was a sign that participants who experienced a reduced amount of stress-related brain chemicals had less of an emotional reaction to the previous day's experience viewing the stressful images.

"We know that during REM sleep there is a sharp decrease in levels of norepinephrine, a brain chemical associated with stress," said Matthew Walker, PhD, an associate professor of psychology and neuroscience at UC Berkeley, and the study's senior author. The lower amount of norepinephrine present during REM sleep allows us to wake up feeling less distressed by painful experiences, Walker explained. "We feel better about them, we feel we can cope," he said.

But REM sleep is often disrupted by depression and other mood disorders. Walker said inspiration for the research came from learning that a generic blood pressure drug helped veterans deal with post-traumatic stress disorder (PTSD). The medication suppressed the secretion of norepinephrine in vets' brains and reduced their stress levels during REM sleep, Walker said. The result? Vets enjoyed more restful sleep with fewer nightmares.

The reason the study is important is twofold: First, these findings may help explain the mysteries of why these medications soothe PTSD symptoms and the sleep of some of these patients,, said Walker. Second, the findings may also unlock new treatment avenues regarding sleep and mental

illness.

How can this research help you? Well, the findings show why it’s important to stay on a balanced sleep schedule when you’re feeling down. And as sleep troubles may aggravate depression, it’s also important to discuss sleep disorders with your doctor.

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